



GUIDEBOOK

for

WONDERS AND WORKERS

by

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Basic Readers: Curriculum Foundation Series

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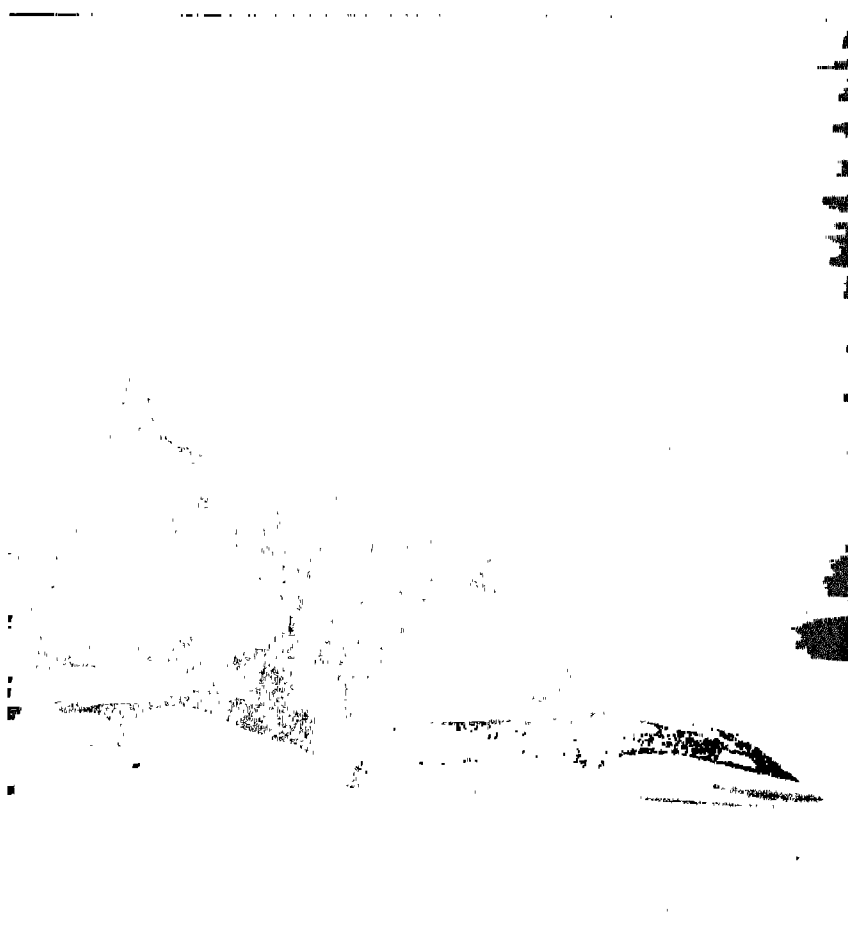
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Irene Elster

INTRODUCTION

Upper-grade boys and girls . . . have needs and interests that differ in degree and intensity from those of younger elementary-school children. These needs challenge upper-grade teachers to plan for their pupils a reading program that will reach outward and upward to provide not only for their growth *in* reading, but growth *through* reading.

There should be growth in the pupils' power to understand themselves and their environment; growth in awareness of their membership in a world the farthestmost part of which is now accessible by air; growth in ability to read critically—not only to understand, but also to accept or reject an author's ideas and from them formulate their own ideals and standards; growth in ability to adapt themselves to their widening horizons, thus broadening their interests and enriching their personalities.

The upper-grade teacher will realize the contribution systematic instruction can make to her pupils' growth *in* and *through* reading. True, most boys and girls in the seventh and eighth grades have already acquired a foundation of basic reading skills. From first through sixth grade the child who has used the Basic Readers has participated in a systematic, ongoing, developmental reading program. Shall we assume, however, that if reading has been well taught in the intermediate grades, no more remains to be done at upper levels? No, indeed! As children progress at upper levels they will inevitably meet more difficult and varied reading materials, more mature concepts, more complex reading problems—and

they need continued guidance. Hence, the trend toward continuation of a basic reading program through junior high school and even senior high school levels.

The Basic Readers **PATHS AND PATHFINDERS** and **WONDERS AND WORKERS** are designed for use at seventh- and eighth-grade levels. They are an integral part of the unified Basic Reading Program—a Program which has an ever-widening scope but which at these upper levels has the same basic goals as at preceding levels. Adolescents, as well as nine- or ten-year-olds, need systematic guidance if they are to continue to grow in their ability to interpret and to find and use worth-while reading materials that will satisfy and broaden their existing interests.

To provide for growth in understanding self . . . the teacher must first know the child as he is. By establishing a feeling of mutual respect and confidence she can encourage boys and girls to talk naturally of their experiences and interests. Knowing the child, the teacher must then know books and be able to bring the two together without seeming to prescribe books as a tonic. Books provide that magic mirror that Robert Burns longed for, the mirror that enables us to see ourselves as others see us. The lonely child, the insecure child can see his counterpart in fiction solve problems akin to his own and thereby gain courage and inspiration. That restless yearning for excitement, for doing something different, that characterizes this age group can find outlet in books of adventure, biography, travel, career-choosing. The girl who can read "Shiny Pants" and see the fine qualities of Bess is growing. So is the boy who reads the story of "Rodney's Rocket" and who, in his own mind, questions Rodney's motives.

To promote awareness of world membership . . . the reading program must include material that brings out through both fact and fiction the modern scientific achievements that have brought the world peoples closer together. Pupils need also material that faces the problems caused by this coming closer together. World membership begins at home with an understanding of problems in racial and class harmony and expands with sympathetic awareness of life in other lands.

Young people need to see their world neighbors not as queer and fantastic but as being both like and unlike themselves. Boys and girls who think of Holland as the place where their good friend Hans Brinker lived

and not as just the queer land of dikes and windmills have the beginnings of world understanding. But exposure to books is not enough. Boys and girls must be led to assimilate what they read, to react sensitively to the problems and feelings of others, to draw conclusions as to what ideas mean in terms of their own future behavior, and to read with a questioning mind.

To provide for growth in ability to read critically . . . the teacher needs first of all to be completely familiar with the material her class will read. Then she can plan questions that stimulate thought, not merely check on detail. As the teacher provides such questions, she gradually leads pupils to ask their own and to establish a pattern for reading with a questioning mind.

Boys and girls are always asking teachers and librarians, "Is this book true? Did this really happen?" They need to be helped to distinguish for themselves the fiction and history in a story like "A Coat for a Soldier" and to recognize the fairy-tale element in "The Swineherd." They need to be helped to form habits of bringing to mind incidents from their own experience that can be compared with similar ones in books and so be used as a standard for judging the integrity of the writer. They need to know how to use reference books to check on the accuracy of what they read. These are the needs of good readers even more than of the poor, and thus they point clearly to the need for basic training throughout the upper grades rather than for only remedial reading for those who have not attained grade standards of mechanical proficiency.

To provide for growth in adapting to wider horizons . . . the basic reading program should present a wide variety of types of material—good stories, straight factual articles, first-person experiences, biography, travel, poetry—practically the whole range which pupils will want to read as adults, geared, of course, to their present level of ability. Radio, television, atomic energy, and marvels yet to come will make the world in which today's youngsters will mature far different from the one we have known. They can face this changing world better if they have some understanding of the changing eras of the past—an understanding that they can best gain through books. Whether they read unthinkingly or with a questioning mind that relates the past to the present depends largely on which they learn to do in their formative years.

The younger child likes to stay within the accepted patterns of convention; the adolescent is continually daring us to keep him there. Teachers can lead, not force, this urge for adventure into desired channels by presenting at the right time books that offer new outlets for energy--a new hobby, a new career, an absorbing challenge of science, a new hero.

And poetry. Too many young people have turned away from poetry because they were expected to read it when they were too young to understand it. For this reason poetry is not included in the primary and middle-grade Basic Readers. In these grades teachers were encouraged to read poetry to their classes, thus letting children enjoy the lilting rhythm without struggling through the intricacies of inverted word order, run-over lines, and figures of speech. By seventh grade most pupils have acquired a reading proficiency that permits them to explore the delights of poetry without being too greatly hindered by its hazards. However, they need guidance in their approach, if reading poetry is to become a joy and not a burden. The pattern for this guidance is provided in the lesson plans in this **GUIDEBOOK**. Poems which meet the eighth-grade pupil's interests, challenge his ideals, and stir his emotions are presented for enjoyment. They are not to be analyzed beyond the degree needed for understanding. Enjoyment, not analysis, is the key word, for the enjoyment of poetry is one of the most rewarding trails to wider horizons.

Challenging responsibilities . . . face the eighth-grade teacher in promoting growth in reading power. The most important of these are to satisfy and broaden pupils' reading interests and to improve the skills and abilities that are needed for the interpretation of worthwhile materials. **WONDERS AND WORKERS**, the accompanying **THINK-AND-DO BOOK**, and this **GUIDEBOOK** are all designed to help the teacher meet these responsibilities.

The **THINK-AND-DO BOOK** presents carefully prepared exercises to promote growth in thinking and reading power. These exercises make skillful use of the interests that are aroused and the abilities that are developed in connection with the stories in the Basic Reader.

The **GUIDEBOOK** presents a program of systematic instruction in reading based on **WONDERS AND WORKERS** and outlines a practical program of independent reading. Concrete helps for extending interests and developing skills are embodied in the lesson plans.

The Reading Program at Book Eight Level

The term “reading program” . . . in its broadest sense includes all types of activities that involve reading. When used in this sense, the term includes all reading that is done in connection with any area in the curriculum, whether it be reading, social studies, science, arithmetic, language, health, or music. In a more limited sense, the term “reading program” refers to those activities which are specifically planned to strengthen the child’s desire for and ability in reading. The term is used in the latter sense in this *GUIDEBOOK* and refers to those activities which are an integral part of such a developmental reading program.

For an adequate reading program . . . at Book Eight level the teacher should plan to provide materials for three general types of reading activities.

Basic reading involves those activities in which pupils read, discuss, and react to the selections in *WONDERS AND WORKERS* and in which they are given systematic guidance to develop reading skills and abilities. These skills and abilities are strengthened through direct and independent application as pupils use the *THINK-AND-DO BOOK*.

Extension reading involves those activities in which members of the class read selections and books that extend interests, ideas, or concepts initiated by the central themes in the *Basic Reader*.

Interests and skills developed in the *Basic Reading* activities are strengthened as pupils read independently material from supplementary readers, library books, reference books, and books in the content fields.

Free reading involves those activities in which children read stories and books at their own level of reading ability and of their own choosing—materials that relate to personal interests, as well as those selected purely for their entertainment values.

Administration of the reading program . . . so that it will effectively meet the needs of individual children is one of the major problems that confront the teacher of reading at any level.

This GUIDEBOOK is designed to offer suggestions for guiding the development of pupils who have successfully completed the preceding levels of the Basic Readers and who are therefore ready to read *WONDERS AND WORKERS*. Assuming that pupils who use *WONDERS AND WORKERS* have reached this level of development, there will still be variations in reading ability within the group. The teacher must give each child the guidance he needs, yet keep the group together for discussion and learning in connection with materials that all members of the class have read.

WONDERS AND WORKERS forms the core around which many other reading activities center and from which they develop. Its effective use should aid the teacher in her systematic development of essential reading skills and abilities. This basic material can supply the opportunities for group discussion and group thinking that are a necessary part of every child's growth in reading, thinking, and language abilities. In addition, the material sets up broad, significant areas of interest around which the extension reading can center.

The various groups of selections in *WONDERS AND WORKERS* can be used to set into action the unit plan of teaching reading. Under this plan the interest area or unit theme introduced by a group of stories in the Basic Reader becomes the springboard to the reading of other stories and books which are related in content. Thus different types of extension reading materials are unified under broad fields of interest. For example, as pupils read the stories and poems in the unit "Builders of America" in the Basic Reader, they are encouraged to read independently material about other historical builders in supplementary texts and in library books.

The unit plan of teaching provides rich opportunity for adjusting the reading program to meet individual needs. Materials selected for extension reading must vary in difficulty if they are to fit individual levels of ability. Some children who are reading *WONDERS AND WORKERS* will be able to read a selection from a ninth- or tenth-grade anthology with ease.

Others who are progressing satisfactorily in Basic Reading might experience difficulty in reading this material but will be able to read a simple fifth-reader story with enjoyment. Regardless, however, of varying levels of ability in independent reading, all pupils in the group can read selections related to the same broad unit theme and can contribute to class discussions which are based on such extension reading.

For free-reading activities, library books and other attractive materials may be arranged on a shelf or table in the library corner. Here children should have an opportunity to browse through many enticing books and choose those that satisfy their own personal interests or those that they want to read "just for fun."

The Basic Reading Program . . . provides three types of core material for use at Book Eight level. The core materials consist of the Basic Reader *WONDERS AND WORKERS* and the accompanying *GUIDEBOOK* and *THINK-AND-DO BOOK*. Embodied in these materials are concrete helps to aid the teacher in strengthening pupils' interest in reading and in developing the skills and abilities needed for interpretation.

THE BASIC READER

The selections . . . in *WONDERS AND WORKERS* represent fine authors and their contributions to the field of literature; so, first of all, this is a book of good literature for young adolescents. Each story or poem has its contribution to make in satisfying boys' and girls' immediate or potential reading interests or in building new interests.

However, *WONDERS AND WORKERS* is more than an anthology of good literature. It is carefully designed to make specific contributions to the pupils' growth in reading power. It takes its well-planned place in the series by building upon the skills and abilities developed at preceding levels and by keeping pace with young adolescents' widening interests and increasing power in reading.

Challenging unit themes . . . are utilized in *WONDERS AND WORKERS*. The selections in each book are organized around dominant areas of children's interest and thus provide the core for a reading program in which the unit plan of organization is inherent. The unit themes around which stories, articles, and poems are organized are sufficiently broad and general to motivate further reading in the major areas of children's literature.

The units will satisfy and extend interest in contemporary life; in sociology, both historical and geographical; in natural science and modern invention; and in literature, both modern and classical.

Unit I—Children's own experiences—provides leads into the reading of material that aids in the development of worth-while attitudes and in the solving of pupils' own personal and social problems.

Unit II—The historical development of our country—gives leads into reading about the lives and achievements of people who lived in past times.

Unit III—The modern machine age in which we live—gives leads into reading about the effects of science and invention on everyday living.

Unit IV—Colorful, imaginative tales—offers leads into reading other tales of fancy or adventure which contribute to the child's enjoyment of reading and to use of his reading as a form of entertainment.

Unit V—Experiences of boys and girls of other lands—provides leads into materials that will aid in the development of broad acquaintanceship with and deeper understandings of life in foreign lands and in the development of an awareness of world membership.

Unit VI—The great outdoors—gives leads into reading not only about animal life but also about man's relationship to his natural environment.

Unit VII—Famous persons—provides leads into wide reading about men and women who have made contributions in the fields of science, art, music, national development, social welfare, exploration, etc.

Unit VIII—Famous works of literature—offers leads into reading stories and poems that constitute a part of the literary heritage of every child.

This wide coverage of units includes almost every possible area of pupil interest; so it assures the teacher that no areas of potential interest to young adolescents will be overlooked.

Each of the middle- and upper-grade Basic Readers utilizes the same broad unit themes, and these eight themes are developed in the same order in each book. This organization is especially helpful to the rural teacher. It enables her to develop and expand the unit theme in discussion groups containing all the middle- and upper-grade children, and it considerably eases her problem of providing appropriate free- and extension-reading materials. For example, the rural teacher can have all the pupils in the middle and upper grades center their attention on the theme common to the first unit in each Basic Reader. This unit includes stories of children's own experiences. The teacher might first develop the unit theme with all the pupils. Then, while she conducts a reading class at

the sixth-grade level with **PEOPLE AND PROGRESS**, pupils in the upper grades may read independently extension- and free-reading materials on the common unit theme. Similarly, while the teacher conducts a reading class with **PATHS AND PATHFINDERS** or **WONDERS AND WORKERS**, those middle-grade children not under her immediate direction can engage in extension reading. Throughout the unit, time can be scheduled for discussions in which all pupils in the fourth to eighth grades take part—discussions in which they share ideas gained in reading, expand ideas about the unit theme, react to good or poor stories they have encountered, etc.

Basic concepts and generalizations common to all the selections in any given unit are carefully developed. As pupils read the selections in the unit "Builders of America" in **WONDERS AND WORKERS**, they learn, for example, that pioneering offers fun and adventure, but that it also involves hard work with plenty of drudgery and danger accepted as a matter of course. As such concepts and generalizations become apparent to the pupils, added meaning, purpose, and motivation are given to their reading. Many pupils will seek additional stories and books to satisfy their growing interest in early life in our country. A strong motive for free reading will have been established—free reading for which a background of basic concepts, generalizations, and interests has been developed.

Helps in interpretation . . . are given for the pupils in a special section at the back of **WONDERS AND WORKERS**. Since the greater part of the reading that boys and girls do at this level is done without supervisory guidance, each child has need of certain helps which he can call into immediate use when the need arises. For example, a pupil may want to know when and where the story took place, something about the author, how to pronounce a difficult word, what is the meaning of a foreign word or phrase, how to pronounce a proper name, whether or not it is a story of real people. To enable pupils to answer questions such as these and to aid in the independent interpretation of the selection being read, three special sections have been included in **WONDERS AND WORKERS**.

Help Yourself!—This section of the book helps pupils in the interpretation of the selections. Background for interpreting particular selections as well as the meanings of difficult words and phrases and the pronunciation of foreign words are given in these notes. Frequent reference by the pupils to this section enables them really to help themselves in their silent reading and makes their reading easier and more enjoyable.

Glossary—This section of the book will aid pupils in determining the pronunciation and meaning of difficult words that are used in the text.

Pronunciation of Proper Names—This section of the book gives the pronunciation of difficult proper names in an alphabetical list for quick reference.

The Bibliography . . . gives a list of excellent books suggested for the pupils' own use and represents another contribution to practical methods of expanding pupils' reading interests.

THE GUIDEBOOK

A program of systematic instruction . . . in reading based on **WONDERS AND WORKERS** and a practical program of independent reading for Book Eight level are both to be found in this **GUIDEBOOK**. Concrete helps for extending interests and developing skills are embodied in the methodology suggested in the lesson plans. The general steps in these lesson plans are briefly stated below:

Step I consists of establishing background for successful interpretation of a selection. This is done by having pupils read and discuss the background note for the story, or poem, or article given in the *Help Yourself* section of the book. In addition, concepts necessary for understanding the selection are clarified in oral discussion, and motivation for the silent reading is suggested.

Step II consists of extending interpretation of the selection. This is done in a group situation and includes stimulating discussion and understanding of what is read and furthering appreciation of literary style.

Step III consists of extending skills and abilities by special exercises presented to the group. Through explanation and oral discussion the teacher develops and strengthens language, thinking, and reading skills.¹

Step IV consists of using the **THINK-AND-DO BOOK**. Here each pupil extends interests aroused through the use of the *Basic Readers* and applies in new situations his reading, thinking, and language skills.¹

Step V consists of directing activities that extend the pupil's interest in reading and widen his background for understanding the world about him. This step includes the use of reference materials, independent reading, and other activities that help the child fuse ideas he gains from reading with his own experiences.

¹A complete index of the skill-building exercises is given at the back of this **GUIDEBOOK**. This index gives reference to the skill exercises in both the **GUIDEBOOK** and the **THINK-AND-DO BOOK**.

Since the reading of poetry begins to be an important part of the reading activities at upper-grade levels, it merits special attention. Teachers will find the detailed lesson plans of great help in preparing for and in presenting the poems. The general steps in these plans are:

Step I consists of suggested preparation that the teacher should make before presenting the poem to the pupils.

Step II consists of presenting and interpreting the poem. This is done in a group situation and includes both the silent reading and discussion.

Step III consists of oral interpretation of the poem. This may be worked out in various patterns consistent with the type of poem being presented.

Step IV consists of extending interests through the use of the THINK-AND-DO BOOK and through activities that extend the pupils' interest in the unit theme and in independent reading of both poetry and prose.

The Bibliography . . . given at the back of this GUIDEBOOK offers concrete help for the teacher in setting up a practical program of extension reading. One section of this Bibliography lists the specific selections for independent reading taken from supplementary readers and anthologies. These selections are closely related in content and vocabulary to those in *WONDERS AND WORKERS*. They fall into three levels of difficulty—easy material is not starred, that of average difficulty has one star, and that for superior pupils has two stars. This enables the teacher to guide each pupil to extension reading that is suited to his ability. In addition, the Bibliography lists all library books referred to in the lesson plans.

Extension reading such as is suggested in the lesson plans and the Bibliography in this GUIDEBOOK is an important part of the Basic Reading Program in that it leads boys and girls to explore and become familiar with the fine literature that is available to them in our modern libraries. The Basic Reader serves as the springboard into the wide field of literature which is explored in the extension reading program.

THE THINK-AND-DO BOOK

Growth in thinking and reading power . . . is stimulated further through the carefully prepared content and exercises of the THINK-AND-DO BOOK. The pages in this workbook make skillful use of the interests aroused and the abilities developed in connection with the selections in *WONDERS AND WORKERS*.

The amount of guidance needed for any exercise in the THINK-AND-DO BOOK is in direct proportion to the ability of the individual child and to the care with which the teacher has developed the preceding steps in the lesson as outlined in the GUIDEBOOK. If suggestions in the lesson plans are followed, the pages of the THINK-AND-DO BOOK will serve to strengthen and establish through use those skills that the pupil has met in an oral situation. Independent application of these language, thinking, and reading skills not only strengthens the skills but also gives the teacher an opportunity to check each child's mastery of their use.

The THINK-AND-DO BOOK is a challenging and interesting book for the pupil. It is not merely a check of his reading of a given story in the Basic Reader or of his recognition of vocabulary. It is rather a book containing much new and valuable reading material that extends the ideas, interests, and skills developed in connection with each unit of the Basic Reader. Both the content of the THINK-AND-DO BOOK and the exercises built on this content are carefully planned to insure a strengthening of the ability to apply basic reading skills in interpreting many types of material: stories, factual accounts, descriptions, maps, pictures, puzzles, etc. The THINK-AND-DO BOOK is an integral part of the Basic Reading Program and, like the Basic Readers, will challenge the pupil's thinking power, promote growth in his reading power, and contribute to his enjoyment of reading.

The diagnostic value . . . of the THINK-AND-DO BOOK is obvious. The teacher, for example, has in a group-teaching situation promoted the ability to adapt a defined meaning to a given sentence context by substitution, transposition, simple paraphrasing, or paraphrasing, as suggested on pages 63-64 of this GUIDEBOOK. But when these same pupils use page 10 of the THINK-AND-DO BOOK, the teacher may discover that some of the pupils are still unable to apply these skills. Such pupils need more developmental work on transposing and paraphrasing words to adapt a defined meaning to context.

Conscientious study of the individual child's reaction to each page of the THINK-AND-DO BOOK enables the teacher to prevent and identify reading disabilities and to provide individual developmental work as needed. Such a program carried out over a period of time means the substitution of planned developmental work for much of the so called "remedial work" that has been necessary with pupils who have not been successful in the early stages of reading.

Improving Skills and Abilities Needed for Interpretation

To interpret clearly . . . what he is reading, the pupil must be able to form mental pictures of the scenes, events, and characters that are described. He must be able to experience how something felt, tasted, or sounded. Such mental images and feeling reactions are essential to clear interpretation of what is read.

To insure clear interpretation, the teacher must see that the child fully utilizes his own background of experience as an aid in creating the necessary mental images. When the reading materials center about things beyond the realm of the pupil's experience, she must aid in building the background needed for successful interpretation.

Study of the problems involved in reading stories and books throughout the grades reveals two types or levels of difficulty in interpretation. The teacher should be familiar with the problems that children encounter at each level.

Interpretation within the realm of experience . . . is a relatively simple type of interpretation. The child interprets at this level when he reads about events, places, objects, or people, the general character of which are familiar to him. On the basis of his own personal experiences, he interprets the experiences of others as set forth in pictures and verbal text. For example, the boy who uses his own experiences with model airplanes to give meaning to a story about airplanes is functioning at the experience level of interpretation. The teacher's main task with the pupil who is interpreting at this level is to help him use the verbal text and the pictures that accompany it to stimulate mental images.

Interpretation beyond the realm of experience . . . is a more difficult type of interpretation. It is frequently necessary for the child to create mental images of places he has never seen, to engage vicariously in activities he has never directly experienced, and to react emotionally to experiences he has never had himself. Typical reading materials that require this creative type of interpretation center around long-ago days and deeds, historic persons and places, or contemporary scenes and events remote from the child's actual experience. To interpret such materials successfully, the child must combine his own experiential background with his understanding of what the author has said in order to create appropriate mental images.

A major problem of the teacher is to determine how closely the child's own experience is related to what he is reading. It is a good plan for the teacher at any level to ask herself before presenting any selection, "What is there in this story, article, or poem that may be wholly outside the realm of some child's experience?" But the upper-grade teacher's problem is not only that of isolating a particular pupil whose meagerness of background may make the interpretation of a given selection difficult. It is also the specific guidance of *all* pupils in the successful interpretation of materials in the realm of things comparatively unknown to them.

Boys and girls in the upper grades will, of course, read both at the experiential level of interpretation and at the creative level. The relationship between the content of the reading material and the child's experience will to a large extent determine the degree of difficulty in interpretation.

THE TOTAL PROCESS OF INTERPRETATION

The act of reading . . . is so familiar to adults that we often lose sight of what is involved in the total process of interpretation. This process is essentially the same whether we are interpreting at the experiential or the creative level. As our eyes move along the printed lines, we instantly associate meanings with most of the words we see. These meanings, as a rule, are the same ones the author had in mind when he wrote the words. Consider, for example, these two sentences: *The men began to box* and *The men began to open the box*. The author had in mind a definite meaning for the word *box* when he wrote each sentence, and the reader must call up from his own experience these same meanings for *box* in order to understand what the author is saying in each sentence. As we

associate meanings with words, we fuse these meanings into thought units until we understand the ideas the author has expressed. We then react to these ideas and integrate them with our own.

. . . perception of the words used

For both children and adults word perception is the first step in interpreting printed language. This step involves two very closely related processes. First, the reader must be able to identify the printed symbol; he must know, for instance, that the word in our illustrative sentence is *box* not *books*. Second, he must be able to call up or identify the meaning which the author had in mind when he wrote the word. Efficient word perception is essential to the other steps involved in the total process of interpretation.

. . . comprehension of the ideas expressed

Most of the material read by children and adults is composed largely of familiar words. We perceive these words as wholes, often in units of two or three, and as vital elements in a meaningful context. As we read, the meanings of the printed words are fused into a chain of related ideas. These ideas should be those that the author had in mind when he wrote the passage. Our grasp of the author's meaning is enriched as we associate with it everything we know about the subject discussed. When either the child or adult has fully comprehended a given passage, he has a clear understanding of the ideas the author wanted to express.

. . . reaction to the ideas expressed

As the author's meaning becomes clear, a good reader reacts in various ways to the ideas secured. He may judge their accuracy, quality, or worth in the light of what he knows and on this basis accept or reject them. He may evaluate the literary style of a passage and respond with appreciation or disapproval. The vividness and validity of the reader's reaction depend to a large extent upon the breadth of his experience. For instance, an adult might read a book on ceramics and think it excellent if he knew nothing of the subject. Another person who knew a great deal about ceramics might read the same book and think it very inadequate. The *reaction* of the reader, that is, what he feels or thinks about what the author has said, is the third step in the reading process.

. . . integration of these ideas with past experience

The reader's reaction determines to a large extent the degree to which he accepts or is guided by the ideas acquired through reading. As ideas expressed by the author are accepted or rejected, they become a part of the reader's vicarious experience. Through reading, as well as through direct experience, he may acquire new insight or deeper understanding of some aspects of human relationships. He may accept an idea that results in improved patterns of behavior and hence a more stable personality. Such *integration* of newer, modified experiences with previous experience is the final step in the process of interpretation.

Specific helps for the teacher . . . in promoting growth in each of the four steps in the total process of interpretation are embodied in the materials and the teaching procedures of the Basic Reading Program.

Methods of improving the skills and abilities used in each of these aspects of interpretation are discussed in greater detail in the succeeding sections of this Introduction.

WORD PERCEPTION

For efficient word perception . . . the reader at eighth-grade level must be able to recognize known printed words quickly and accurately and to associate meanings with these words. He also needs the ability to derive the meaning and pronunciation of printed words even though their visual forms are not familiar. The pupil who is ready for the Book Eight level of reading approaches this level with considerable skill in word perception. He has established a vocabulary of several thousand words which he knows so well that he recognizes them instantly, and he has acquired skills and abilities that enable him to attack many new words.

The methods of word perception . . . used in recognizing any given word will depend upon the child's familiarity with the meaning and form of the particular word and upon its general character or structure. For example, when the upper-grade child encounters known words grouped in familiar thought units, he may recognize an entire phrase at a single glance. In like manner, he may accurately recognize known individual words through the use of meaning clues combined with the visual impression of the word form. Most of his reading is done on the basis of

those words which he already knows and for the recognition of which he relies upon two methods of perception—meaning clues and word-form clues.

The eighth-grader will, however, frequently encounter an unknown printed symbol in the midst of known words. When he meets an unknown word form, he will need to supplement the first two methods of word perception with more detailed analysis of the printed form. Such analysis may reveal structural and phonetic elements that will help him derive the sound of the word. If the word is in his speaking-meaning vocabulary, he should then associate with the printed form one of the meanings he has previously associated with its spoken counterpart. If these methods prove inadequate, or if the meaning or the pronunciation of the word is quite unfamiliar to the child, he will need to use a glossary or a dictionary.

Let us assume that a child successfully attacks a new word the first time he meets it in his reading. Eventually the word, if it is a common one, should be brought to the level of instantaneous perception. Real mastery or instantaneous recognition of the word comes only as the child meets it over and over again in meaningful context. Thus mastery of word forms comes through repeated encounters in genuine reading situations such as the pupil engages in in his basic, extension, or free reading, as well as in his reading in the content fields. So for the eighth-grade teacher the real problem in developing power in word perception is not so much that of providing drill on word forms that pupils have already met as it is that of teaching children to attack new words in various ways.

Special help for the teacher in promoting growth in word perception is provided in the Basic Reading Program by a carefully planned developmental program with attention to promoting skill in the use of the five major aids to word perception: meaning clues, word-form clues, structural analysis, phonetic analysis, and the dictionary.

Meaning clues . . . provide the most important single aid in attacking a new word, and throughout the Basic Reading Program provision is made for developing power in the use of such clues. Meaningful context serves to aid children and adults alike in inferring the meaning and pronunciation of a word whose printed form is unfamiliar. In addition, meaning clues are essential in checking a word derived through word analysis or the use of a dictionary, for the child must always check to see if the word he derives "makes sense" in the sentence in which it is used. Since

meaning clues are such a vital part of independent word attack, the upper-grade teacher should make every effort to teach children to use this method of attack effectively.

Obviously, the broader a child's experience and speaking-meaning vocabulary, the more readily he will be able to respond to meaning clues in his reading. Throughout the Basic Reading Program provision is made for extending speaking-meaning vocabularies through direct and vicarious experiences and through abundant opportunity for oral discussion in which the children *hear* and *use* new words.

In addition to providing for the development of the child's speaking-meaning vocabulary, the Basic Reading Program embodies other specific provisions for helping children learn to use context or meaning clues as a method of word perception. In brief, these provisions are:

1. From the early stages in reading children are made aware of the variant meanings that words may have. Throughout the *GUIDEBOOK* and *THINK-AND-DO BOOK* for *WONDERS AND WORKERS* the teacher will find emphasis on making pupils aware of the variant meanings of words.
2. Children are taught to contrast and to compare word meanings.
3. Children are taught to identify various shades of meaning and to note how different shades of meaning can be expressed through careful and exact choice of words.
4. Children are led to perceive relationships in and to generalize word meanings.
5. The Glossaries provided in the *Book Eight Basic Reader* and in the *THINK-AND-DO BOOK* give variant meanings of a word rather than merely giving the first meaning used in the book.
6. Children are taught to select from variant meanings the one appropriate to a given context. In this connection, the teacher will find many exercises based on the Glossary of the text as well as on the Glossary in the *THINK-AND-DO BOOK*.
7. Special guidance is provided for teaching children to select and adapt appropriate definitions in the light of a given context.

Training in ability to use meaning clues is begun at the primary level in the Basic Reading Program, and throughout the lesson plans in the *GUIDEBOOKS* for both middle and upper grades, suggestions are given for strengthening the ability to use context clues as aids to word perception. In addition, the *THINK-AND-DO BOOKS* give practice and promote growth in the ability to use meaning clues.

Word-form clues . . . furnish another valuable aid to word attack. The Basic Reading Program at all levels gives attention to teaching children to compare word forms and to note the length of words, their general contours, or their distinguishing characteristics. From the outset, too, children are taught to identify many new words by comparing them with known words. For example, pupils who know the word *umpire* may derive the pronunciation of *empire* by comparing the word forms.

The **GUIDEBOOK** for **WONDERS AND WORKERS** and those for the preceding books in the Basic Reading Program and the accompanying **THINK-AND-DO** Books suggest procedures for promoting growth in the ability to distinguish word forms by:

Noting likenesses and differences in the configuration of words: e.g., *availability* is longer than *avail*.

Noting likenesses and differences in words of similar form; e.g., *cue* and *cur*.

Noting specific letter sequence in words; e.g., *quiet* and *quite*.

Noting details of form in words that are different in form and meaning but are pronounced alike; e.g., *bridal* and *bridle*.

In the lesson plans in the **GUIDEBOOK** at the upper-grade level and in the exercises in the **THINK-AND-DO** Book frequent attention is given to the maintenance and application of the ability to use word-form clues.

Structural analysis . . . is based on visual scrutiny of the total word form. Such scrutiny may reveal, for example, that the new word is a compound made up of two known words, or that it is made up of a root word plus an inflectional ending, or that it is a word that must be broken up into syllables before it can be "sounded out." It is obvious that structural analysis is particularly valuable in attacking word variants or derivatives, compound words, and words of more than one syllable.

In the Basic Reading Program training in structural analysis begins as soon as pupils encounter inflectional variants formed by adding *s*, *d*, *ed*, or *ing* to known verb forms. By the end of Book Seven level the training provided in the **GUIDEBOOKS** and the **THINK-AND-DO** Books should enable the children to use structural analysis to:

Identify the parts of a compound

*Identify the structure of inflectional variants that are possessive forms; plural nouns formed by adding *s* or *es*; verbs formed by adding *s*, *es*, *d*, *ed*, *ing*, *n*, *en*; forms made by adding *er* or *est* of comparison. These include word variants formed by dropping final *e*, by changing final*

y to *i*, *f* to *v*, or by doubling the final consonant before adding any of the endings listed on the preceding page.

Identify the structure of word derivatives formed by adding the prefixes *a*, *dis*, *en*, *fore*, *im*, *mid*, *re*, *un*, or by adding the suffixes *able*, *al*, *ant*, *ance*, *en*, *er*, *ful*, *ion*, *ish*, *ist*, *less*, *like*, *ly*, *ment*, *ness*, *ous*, *ty*, or *y*

Identify the root word in a variant or a derivative

Recognize contracted words

Determine pronunciation units in words by applying the following general principles of syllabication:

If there are two consonants between two vowels in a word, the first syllable usually ends with the first of the two consonants; e.g., en ter, ad mit.

If there is one consonant between two vowels, the first syllable often ends just before the consonant; e.g., a larm, bro ken.

If a word of more than one syllable ends in le, the consonant preceding the l usually begins the last syllable; e.g., sta ble, ma ple.

The developmental program suggested for use in the **GUIDEBOOK** and **THINK-AND-DO BOOK** that accompany **WONDERS AND WORKERS** provides for maintenance of, and growth in, the use of all the abilities developed at previous levels. Special emphasis is given to promoting the ability to identify syllabic units in words and to recognize word derivatives by identifying root words, prefixes, and suffixes.

Phonetic analysis . . . involves the association of sound with printed letter symbols. To use phonetic analysis in attacking a word, the pupil must have a knowledge of the sounds that we use in our language and of the symbols that stand for these sounds. About 43 separate and distinct sounds are used in general American speech. Each of these is either a consonant or a vowel sound. The 26 letters in our alphabet are the written symbols that are used to represent these sounds.

Since we have more sounds in our language than we have symbols, it is obvious that certain of the symbols must be used to represent more than one sound. The letter *a*, for instance, is used to represent a different vowel sound in each of the following words: *at*, *age*, *car*, *all*, *care*, and *ago*. In fact, each of the vowel symbols is used to represent several variant vowel sounds. Sometimes a consonant symbol may represent more than one sound. For example, *s* represents different sounds in *see*, *tree*, and *fusion*.

To get the sound of many types of words from their printed form, the child must be able to associate appropriate sounds with consonant and

vowel symbols and to blend these sounds into pronounceable units or syllables. Consonants and vowels blended into syllables are the phonetic elements that children and adults deal with, consciously or unconsciously, in all their use of language.

Just as a given word in our language may have more than one meaning, so a letter symbol may have more than one sound; and just as the meaning of a word is determined by its use in the sentence, so the sound of a phonetic element is determined by its use in a word. To develop efficiency in using meaning clues, the teacher must develop an awareness of variations in word meanings and teach the child how to select from variant meanings the one appropriate to a given context. In like manner, to develop efficiency in using phonetic clues she must develop an awareness of variations in letter sounds and teach the pupil how to select from variant sounds the one appropriate to a given word.

Throughout the Basic Reading Program emphasis is placed on association of sound and symbol and on developing phonetic understandings and principles. The following skills and understandings are developed in this and the preceding *GUIDEBOOKS* and *THINK-AND-DO BOOKS*.

Phonetic Skills

Visual-auditory perception¹ of three types of consonant elements

- (1) single consonant letters
- (2) consonant blends (*bl, cl, dr, fr, st, scr*, etc.)
- (3) two-letter consonant symbols that represent consonant sounds which we use in our speech but for which we have no letter in the alphabet (*th, ch, ng*, etc.)

Visual-auditory perception of three types of vowel elements

- (1) single-vowel letters (*a* as in *hat, age, care, far, about*; *i* as in *it, ice*, etc.)
- (2) two-vowel letters that may be used to represent variant single sounds (*oo* as in *good* and *food*)
- (3) two-vowel letters that may be used to represent two closely blended vowel sounds or diphthongs (*ou* as in *house*; *oi* as in *oil*)

Auditory perception of syllables

Auditory perception of accent

Blending consonant and vowel sounds

¹Association of sound and symbol. In the Basic Reading Program pupils are given specific training in hearing the 43 sounds or phonemes which are used in general American speech and for which symbols are given in the pronunciation keys for the Glossaries found in *WONDERS AND WORKERS* and in the accompanying *THINK-AND-DO BOOK*.

Blending syllables into word wholes

Noting and using visual clues that aid in identifying accented syllables

- (1) in most two-syllable words which end in a consonant followed by *y*, the first syllable is accented and the second unaccented; e.g., *carry*, *baby*
- (2) when a prefix, suffix, or inflectional ending forms a separate syllable, the syllable is usually unaccented; e.g., *implant*, *predictable*, *hunted*, *folded*
- (3) if a final syllable ends in *le*, the final syllable is unaccented; e.g., *maple*, *table*, *cradle*

Phonetic Understandings

Silentness

- (1) consonants in words may be silent; e.g., the *k* and *w* in *know*
- (2) silent vowels are usually phonetic clues; e.g., the second vowel in *rain* and *nice*

Variability

- (1) some consonants have variable sounds; e.g., the *s* in *see* and *sure*
- (2) vowel letters stand for more than one sound; e.g., *plaid*, *rain*; *hit*, *high*
- (3) word forms may give meaning clues (homonyms); e.g., *know*, *no*

Relation of vowel sounds and syllables

- (1) a word or a part of a word in which we say one vowel sound is called a syllable
- (2) awareness of syllabic divisions aids in determining vowel sounds in a word of more than one syllable; e.g., *la dy*, *lad der*

Principles that aid in determining vowel sounds

- (1) *position*—if there is only one vowel letter in a word or syllable, that letter usually has its short sound unless it comes at the end of the word or syllable; e.g., *debt*, *flax*, *en rich*, *go*, *cli max*
- (2) *silent vowels*—if there are two vowel letters together in a word or syllable, usually the first has its long sound and the second is silent; e.g., *beech*, *zeal*, *in laid*

If there are two vowel letters in a word or syllable, one of which is final *e*, usually the first vowel letter has its long sound and the final *e* is silent; e.g., *hale*, *eke*, *em pire*

- (3) *consonant controllers*—if the only vowel letter in a word or syllable is followed by *r*, the sound of the vowel is usually controlled by the *r*; e.g., *cur*, *garb*, *jar gon*, *fer tile*

If the only vowel letter in a word or syllable is *a* followed by *t* or *w*, the *a* usually has neither the long nor the short sound; e.g., *awe*, *chalk*, *Bal tic*, *Saw yer*

In the **GUIDEBOOKS** and the **THINK-AND-DO BOOKS** that accompany the upper-grade Basic Readers, provision is made for review and reteaching of all the phonetic elements, understandings, and principles that have been presented at earlier levels. Special emphasis is given to recognizing the effect of accent on pronunciation and meaning and to a pronunciation key as an aid in deriving the pronunciation of words.

The dictionary . . . becomes an invaluable aid to the pupil as he grows in ability to use it effectively in deriving the meaning and pronunciation of words. When he encounters words in his reading with which he is totally unfamiliar, the upper-grade child should feel that he can be absolutely certain of their pronunciation or their meaning through use of a dictionary. A dictionary is also invaluable in checking the accuracy of pronunciations and of meanings that have been derived through use of context clues and various forms of word analysis.

Throughout the middle- and upper-grade Basic Reading Program an attempt is made to lead boys and girls to understand the function of the dictionary in helping them derive the pronunciation and meaning of words. They are helped in this respect by the excellent Glossary provided in the Basic Readers. Through use of this Glossary children practice valuable dictionary skills which they can transfer to the use of their own dictionaries. Words listed in the Glossary in each book are mainly those that are not likely to be in the children's speaking vocabularies, and whose meanings cannot readily be derived from context.

It is important to note that the Glossary in **WONDERS AND WORKERS** and the one in the **THINK-AND-DO BOOK** give variant meanings of words. Where words are used with variant meanings in this text, these variant meanings are given in the Glossary.

In both Glossaries a phonetic alphabet is used to indicate pronunciations, and these pronunciations are divided into syllables and marked for accent. In using a Glossary of this kind, children get experience with these various aids for deriving meaning and pronunciation. This experience prepares directly for use of the same aids in the dictionary.

Practically all word-perception skills are called into play in the use of the dictionary—alertness to meaning in context, alertness to sounds and the symbols that represent them, and alertness to word structure. The pupil who, for example, has not developed the ability to select from

variant meanings the one appropriate to a given context is not prepared to use the dictionary as an aid in deriving meaning. Likewise, the child who has not developed the ability to associate sounds with symbols, who is not aware that some letters in a printed word may be silent, and who is not aware of the variant sounds of letters is not prepared to use a pronunciation key and a phonetic alphabet as guides to pronunciation.

To use the dictionary as an aid to word perception, the pupil must know how to locate entries and how to derive meaning and pronunciation. Skills prerequisite to these aspects of dictionary use are carefully developed in the Basic Reading Program. These *GUIDEBOOKS* and the *THINK AND DO BOOKS* that accompany *WONDERS AND WORKERS* and the preceding books give the teacher concrete help in developing the major dictionary skills indicated below:

To locate entries the child must be able to:

Recognize alphabetical sequence

Locate words in an alphabetical sequence

Use guide words

Identify root words in variants and derivatives¹

To derive meanings the child must be able to:

Comprehend definitions of meanings

Infer word meanings from illustrative sentences

Select from several meanings the one appropriate to a given context

Adapt the appropriate definition to the given context

To derive pronunciation the child must be able to:

Associate a given consonant sound with its most common symbol

Recognize variant vowel sounds and associate them with given symbols

Use a pronunciation key to identify consonant and vowel sounds

Blend consonant and vowel sounds into pronounceable units or syllables

Recognize the function of visual syllabic divisions

Recognize the function of the accent mark

Blend syllables into word wholes

Study of the skills that the child must employ when he uses the dictionary makes it evident that the upper-grade teacher has a twofold responsibility in promoting growth in the ability to use it economically and effectively. First, she must make sure that any pupil who is expected to use the dictionary has developed the prerequisite skills. Second, she must maintain and strengthen the children's ability to apply these skills to

¹This is an essential locating skill. For example, if the pupil meets the word *musings* in his reading, to learn its meaning he must identify and look up the root word *muse*.

the use of a dictionary and develop understanding of the function of dictionary aids.

Children should understand, for example, the function of a phonetic alphabet in the dictionary in showing the pronunciation of words. They should be taught to think of these pronunciations as exact recordings of sound. They should realize that in the dictionary a given consonant sound is represented by a given symbol and that vowel letters plus diacritical marks are used to represent vowel sounds. This understanding can be developed by showing children that in the words *lad*, *lard*, and *laid*, the letter *l* has the same sound and the letter *d* has the same sound. So the letters *l* and *d* may be used to represent these sounds, but in the three words listed above, the letter *a* represents three different sounds. In order to indicate accurately the sounds of *a*, special signs or diacritical marks are used with the vowel letters.

To develop skill in selecting the meaning appropriate to a given context, the teacher must give children many opportunities to discriminate between meanings and to select the one that best fits into a given sentence. In the past, a common practice has been to give children a list of words and ask them "to look up and copy the meaning." The upper-grade teacher will readily realize that practice of this kind fosters the all too common habit of looking only at the first meaning given. If children are asked to look up the meaning of isolated words, the teacher can expect inefficient dictionary habits as a result. Suppose, for example, that the child is asked to find the meaning of *tender*. Unless he sees the word in a sentence, how is he to know whether *tender* is used in the sense of "tender-hearted," "tender meat," "tender his thanks," or "coal tender"? It is evident that the teacher must at all times see that children interpret and select word meanings in the light of context.

Teachers at all levels . . . must contribute to the development of permanently useful techniques in word perception. Simple understandings of words as printed symbols should be developed at primary levels, but to the middle- and upper-grade teachers falls the responsibility of further enriching those understandings and of enlarging children's speaking and reading vocabularies to include words that refer to things beyond the realm of their actual experience. To them also falls the task of developing efficient habits in and attitudes toward the use of the dictionary.

Word perception is basic to comprehension and to all other aspects of interpretation in reading. Therefore, the upper-grade teacher who hopes to improve interpretation on the part of boys and girls must also promote efficient habits in using meaning, word form, structural and phonetic analysis, and the dictionary as aids to word perception.

COMPREHENSION

To comprehend . . . what he reads, a child must grasp clearly the author's meaning, and this involves far more than getting a series of isolated facts. It calls for getting full meaning from those facts. To do this, word and phrase meanings must be fused into sentence thought, and sentences must be interpreted in the light of the total paragraph, article, chapter, or story in which they appear. This latter step often necessitates sensing the author's mood or tone or intention.

To improve comprehension . . . the teacher must see that the child has an adequate background of experience to enable him to grasp the meaning of what he is expected to read. She must help him develop skill in visualizing the persons, places, and events described in his reading and in sensing the author's mood, tone, or intention. In addition, the teacher must utilize to the fullest extent genuine thought-getting questions, and she must provide training in grasping the main ideas, in noting essential details, and in recognizing relationships and organizing ideas. Out of such a program will come growth in comprehension.

. . . enriching background of experience

A rich background of experience is essential to successful comprehension, and a major problem of the teacher is to determine the extent of the child's actual experiential background for a particular story or article. In so far as possible, the teacher should provide direct experiences that will furnish background for what is to be read. At the middle- and upper-grade levels, however, it is not always possible to provide concrete experiential background, for much of the reading at these levels centers about things outside the range of children's actual experience. A child, for example, may have difficulty in comprehending a passage about the African veld if he has never heard of it before. Thus the teacher must frequently use not only discussion but also pictures, movies, models, and other means for supplementing the children's background.

. . . developing ability to visualize

Ability to visualize persons, places, and events described in reading is also essential for successful comprehension. For example, to comprehend fully a story about a boy living on Luzon, the child must build mental pictures of the setting—the primitive utensils, the small huts, the colorful costumes, etc. The teacher can promote the ability to visualize effectively by calling attention to pictures that accompany and illustrate the text, by leading the child to note and interpret descriptive details, by frequently asking him to tell what picture a given passage makes him see, and by encouraging him to draw pictures or maps depicting persons or places or activities described in his reading. Vivid imaginations, capable of creating necessary mental pictures, can also be furthered by giving children many chances to read hero stories, legends, and other imaginative tales, as well as realistic material about historical events or foreign lands.

. . . promoting awareness of the author's mood, tone, or intention

Frequently the child must be aware of the author's mood, tone, or intention before he can fully comprehend what he reads. For example, the young reader who does not understand the legendary history of Ulysses will be greatly puzzled by many of his adventures. So, too, will be the boy or girl who reads "The Legend of Sleepy Hollow," by Washington Irving, without sensing that the story is meant to entertain and that the incidents are far from realistic. Gradually children must learn to interpret a story or an article with such questions as these in mind: "Just what type of material is this? Is it written to entertain or to give exact information? Are the events possible or impossible? What period in history is this material describing? Is it a true account of real people, or is it purely imaginary?"

In poetry, as in prose, the child must be able to sense the poet's mood, tone, or intention. For example, for real enjoyment of the poem "The Oregon Trail," by Arthur Guiterman, the child should understand the poet's intention of depicting the struggle and courage of the men and women who took the wagon road to Oregon. In contrast to this, the pupil must enter into a mood of whimsy and humor to fully appreciate the poem "Manual System," by Carl Sandburg.

. . . promoting use of pictorial aids

The child must be taught to use pictorial aids given in the text to supplement his own background of experience and to clarify his visual images. Illustrations, graphs, maps, etc., often furnish background for reading a given selection, and they enrich the text matter itself. The teacher must not assume that just because pictorial aids are present in reading materials the children will automatically use them. She should persistently focus attention on these aids. Then, too, she must teach specific techniques for using pictorial aids. For example, when children are to encounter a picture map in their reading, she should explain the technique of checking and supplementing the text matter with this map and of combining both aids to get a fuller comprehension. She should also give needed instruction in reading and using the scale or key that accompanies the map. Similar guidance should be given to help pupils effectively use the simple graphs that they encounter in their reading.

. . . asking genuine thought questions

Genuine thought questions must be an integral part of any program designed to improve comprehension, and the teacher must guard against common pitfalls in the questioning of children. These pitfalls include centering children's attention on unimportant, isolated facts gleaned from their reading. This is often done in the name of "checking comprehension." Because genuine thought questions are not always easy to evolve and because children are often asked to write "short" answers to questions, the following types are frequently put before children: "Why did Rodney buy so much ice cream? What finally happened to his rocket?"

In addition, children are often told to look up the answer on a specific page, or they are asked a question that can be answered in the direct words of the book. Children may find these answers and be praised for their direct quoting of the author's words. But in reality the pupils may have been merely "quoting words," unaware of their meaning and lacking in understanding of them. Activity of this kind is not training in research or in comprehension. It is training in superficiality. It results in emphasis on reading for sentence meaning alone, instead of reading in the light of broader context. Locating isolated and unrelated facts gives no practice in grasping the meaning of the sentence as related to the total flavor and background of the material the children are reading.

What kinds of questions should the teacher ask to promote growth in comprehension? A few concrete examples may help clarify this problem. To derive the most benefit from these examples, the teacher might well turn to and read the story "Ben Bartlett's Banner" in *WONDERS AND WORKERS*, pages 20-34. After reading this story the teacher might ask only such questions as:

What were the three things Ben asked Granny's permission to do?

How was Ben's boat christened?

Why had Stanley called Ben a quitter?

What part did William, Granny's boathman, play in the Labor Day races?

Why did Ben swim back to his wrecked boat instead of to Granny's motorboat?

Obviously, these are isolated "fact questions." Answering them requires little thought and little ability to grasp essential meanings. Now compare such questions with the following ones:

What was Ben's goal in entering the race?

Why was it hard for Granny to decide to let Ben participate in the Labor Day free-for-all?

On what occasion do you think Ben might have felt as though his grandmother did not understand his problems?

What was the significance of the banner?

Notice that questions like these cannot be answered by recourse to the exact words of the book. The child must think and relate the meanings of many sentences to answer them. Notice also that the questions do not ask for useless detail. By such questions as these, the teacher can do much to improve the children's ability to grasp the essential meanings in what they read, and by such questions she can avoid a practice all too common in teaching today—that of centering attention on isolated facts or unimportant details.

Excellent helps . . . are provided in the *GUIDEBOOKS* and the *THINK-AND-DO BOOKS* to further growth in the ability to comprehend what is read. Questions and suggested discussions in the lesson plans, for example, are genuinely thought provoking and carefully planned to avoid treating isolated facts or unnecessary details. Frequent suggestions and exercises are also provided to aid children in visualizing what they are reading, to grasp main ideas and essential details, to see relationships and organize

ideas. And of particular significance in improving comprehension is the attention given to informational material in the *THINK AND DO BOOKS*. Presentation of informational material promotes comprehension of factual materials that are divorced from plot structure of any kind. Thus valuable training is provided for promoting accurate comprehension of such material as science, social studies, and other content materials that are a part of the upper-grade curriculum.

REACTION TO MATERIAL READ

To react to material read . . . the child must not only clearly grasp the author's meaning; he must think about, evaluate, and respond to the author's ideas and to the style in which those ideas have been presented. He must respond to the ideas gained through reading by reflecting about them, relating them to his own experiences, becoming emotionally stirred by them, comparing and contrasting them with the ideas gained from related materials, etc. Reading comes alive for the child as he experiences appropriate reactions to what he reads; therefore, every thing possible should be done to help him grow in his ability to respond actively to the material he reads.

To stimulate critical and emotional reactions . . . the teacher must guide discussion so that the child moves beyond a consideration of "What does the author say?" to a consideration of "What does this material mean to me?" In so doing, he is functioning at a level where his responses will probably be unlike those of his classmates. There will not always be a "right answer" to questions involving children's own personal reactions. Instead, answers will—and should be expected to—vary according to the individual child's own past experiences and his existing standards of judgment. What teacher, for example, could designate the one right answer to such reaction questions as "Do you think Ben's moral victory over Stanley was worth losing the boat, risking his life, and worrying his grandmother? Do you think Granny was wise in giving Ben permission to enter the race? What makes you think so?"

Boys and girls should frequently have the opportunity to give their reactions to poems, stories, or books as a whole. And here again personal opinions should be respected. The teacher should not expect every child to like every poem or every book that he reads. Indeed she should realize

that some wholehearted, honest dissenters will do much to make reading discussions genuine and worth while.

Out of class discussions based on children's reactions to what they have read can come a clearer recognition of values, increased capacity to read critically, and tolerance for the views and reactions of others. In the course of such discussions children can round out ideas and understandings that were incomplete or hazy at the outset. They can learn to make worthwhile suggestions and reactions of others a part of their own thinking.

A common mistake in the teaching of reading is, however, to make little or no provision for interpretation beyond a comprehension level. Boys and girls are often asked to give the author's meaning, but they are not so frequently required to react critically and emotionally to what they have read. For example, after reading the story "News from the New World," the teacher might stop with such comprehension questions as:

*Did Matt and the Pilgrims land where they had planned to?
Was it a simple task to build the settlement?*

But the teacher who is alert to the value of reacting critically will not stop with questions of this type. She will supplement them with such provocative questions as:

*Why do you think that first winter in New Plymouth was such a difficult one for the settlers?
If you had been with Matt and the colonists, at what time would you have felt most like giving up?
How do you think Matt's mother will feel about her new home with its many dangers and discomforts?*

These latter questions force the child to think about what he has read, to make inferences, to reflect on the wisdom or fairness of the action of characters in the story, and to relate the story to life experiences. Questions of this kind can develop habits of thinking that can be of great importance to both individual and society. But such questions are frequently omitted because they cannot be answered conveniently in written form.

Obviously, questions that stimulate critical reaction do not lend themselves readily to short-form written answers. Although skillfully prepared exercises or workbook materials contribute to helping youngsters do the type of thinking required to make inferences and judgments, complete reliance should not be placed on exercises alone. Exercises in themselves

offer too little opportunity for the sharing of ideas or for the modification of ideas as a result of this sharing process. The greatest growth in ability to think clearly about and to react intelligently to what is read must come through carefully planned oral discussion. In these discussions the teacher should raise challenging questions and should expect varying answers. One child, for example, might on first thought give approval to the idea of risking great danger to gain an end. But after hearing the judgments and opinions of other boys and girls, he might no longer support his original conclusion. The opportunity to pool judgments, to support personal conclusions, and to recognize the inappropriateness of wrong responses can come only through the right kind of discussion. Of course, not all pupils will be able to react with equal wisdom and effectiveness to what they read, but it is essential that every pupil have an opportunity to grow in this phase of reading and that he receive needed stimulus and guidance.

It is important, too, that at all times the teacher refrain from considering a child's reaction "wrong" or "inappropriate" until she investigates the basis for his reaction. Each individual's reaction to a selection should be respected, and each child should have a chance to state the reason back of his views.

If, however, after due consideration of his reasoning, a child's personal reaction is obviously inappropriate, it is the teacher's responsibility to help the reader change his outlook or modify his existing standards of judgment. Here again some of the most worth-while teaching can come as the result of group discussion and evaluation.

To present poetry effectively . . . the teacher should remember that its strongest appeal is to the emotions. "Poetry surprises and delights; it sings like music; it makes you feel intensely; in singing words, it gives you an arresting thought, plus a shiver up your backbone. When poetry means these things to you, you have genuinely enjoyed it, it is poetry to you. When it leaves you just where you were, neither aroused nor amused, neither enchanted nor solaced, then poetry has not happened to you, it has passed you by. So with children, if poetry leaves them puzzled or apathetic, they have not tasted poetry."¹

¹ Reprinted from *Children and Books*, by May Hill Arbutnot, by permission of Scott, Foresman and Company. (The following discussion of poetry is based largely on material from this book.)

Pupils' reactions to poetry will be heightened if their ears are attuned to the subtleties and varieties of rhythmic patterns found in the poems of such skilled literary craftsmen as are represented in *WONDERS AND WORKERS*. They must learn to respond to the poet's words—for although these same words are found in prose, the poet uses them more melodiously and with more striking effect. It is the sensory and associative significance of words found in good poetry that gives the lines those "overtones" of meaning that the child often feels without being able to define. Words that stir the imagination, that speak to the senses, that provoke sudden laughter, that move the reader or the listener deeply and strangely although he cannot say why, such words are the very bone and marrow of poetic diction.

If good poetry is well-presented, it may add to the child's day a moment of delight, or give him a new dream to dream over in solitude, or leave him with a sharpened awareness of life. The upper-grade teacher has a significant contribution to make in establishing poetry as a permanent source of pleasure—as a way by which the child may be carried out of himself and come back to his own concerns happier, warmer, perhaps even a bit wiser. As he reads or hears fine poetry, his spirit may be enlarged by that moment of appreciation of and identification with the poet's thought.

Poetry can expand the vision, add richness to laughter and beauty to dreams; but not if it is treated as material for analysis or as the basis of reading exercises. Skillful questioning and discussion are not the keys for unlocking or heightening children's reactions to poetry. The teacher must learn to wait for children's reactions. When they have heard or read a poem, a question or an honest if hesitant comment that is really their own is an indication of reaction. If they are silent, mayhap they are too much under the spell of the poet to marshal their reactions and translate them into words.

When children begin to bring in poems of their choosing, when they begin to ask for poetry—these are the ultimate tributes to its power and to the way in which it has been presented by the teacher.

In the lesson plans for the poems in *WONDERS AND WORKERS* every attempt is made to give the teacher herself the "feel" of poetry—the auditory patterns of the singing words and the mood of the poet. It is the hope of the authors that these lesson plans will aid teachers in presenting fine poetry so that children will feel it as well as understand it. Young adoles-

cents delight in rhythm, tone color, cadence, all that goes into the melody of verse. It is hoped that the upper-grade teacher, too, will savor the singing quality of poetry and will understand how to bring out its meaning without spoiling its song or its emotional appeal.

Concrete suggestions . . . are given in the *Guidebooks* for guiding the discussion and interpretation of all selections in such a way that children are led to think about what they have read in terms of "What does this material mean to me?" Throughout the lesson plans in the *GUIDEBOOKS* and the exercises in the *THINK-AND-DO BOOKS*, materials are especially designed to aid boys and girls in reflecting on the significance of ideas gained through reading, in relating reading to life experiences, in reacting emotionally to what has been read, in comparing and contrasting materials from various sources, and in recognizing and appreciating fine literary craftsmanship. The teacher is given valuable suggestions for helping boys and girls modify judgments, expand first reactions, and eventually come to a clearer recognition of values and an increased capacity to read critically and appreciatively.

INTEGRATION AND USE OF IDEAS GAINED

Integration of ideas gained in reading . . . with past experience is the final step in interpretation. Pupils have not really learned to interpret in the broadest sense of the term until they can integrate and apply ideas they have gained from reading in satisfying intellectual curiosities, in solving personal and social problems, and in enriching their own personalities.

If reading is to furnish the child with worth-while ideals, attitudes, and concepts which he in turn can incorporate into his own thinking and behavior, the right kind of reading material must be used. There is obviously a place in the upper-grade reading program for hero stories and biographical material about famous men and women. Such materials clarify for children worthy ideals, goals, and courses of conduct and stimulate children themselves to reach toward them. Just as obviously there is need for reading material about wholesome activities of boys and girls today. For example, through such stories as "Shiny Pants" in *WONDERS AND WORKERS* children get an understanding of such qualities as loyalty, good sportsmanship, and unselfishness. Subtly presented in this

story, too, are the ideas about sharing the responsibilities at home and having consideration for others. These ideas appear in the normal course of the unfolding of the plot. They are not superimposed nor are they "preachy" in tone. Such ideas merely objectify experiences boys and girls themselves may have had in their relations with others. They offer a basis for a purely impersonal discussion and evaluation of types of attitudes and behavior.

There is also need for a variety of reading materials related to each other in theme and content; e.g., a variety of materials centering around the outdoor world, a given period in history, and life in the modern machine age. These materials furnish the prerequisite background for using ideas gained from one source to modify or enrich ideas gained from other sources. A wealth of materials to which children can go to satisfy their own curiosities or solve their own problems is necessary if reading is to enrich existing backgrounds of experience and broaden children's concepts and outlooks.

Even though the child may have access to a wide range of reading materials, he will gain little from reading on such a topic as "Road to Alaska," for example, if he does not get new ideas as he reads, if he does not combine these ideas with what he already knows and thus modify and expand his original concepts into broader understandings. Similarly, it may profit a shy, discouraged child little if he reads such a story as "Power Dive" and yet cannot apply any of the ideas he gains to his own personal problems. Children must see the connection between what they read and what they do if they are to use the ideas they acquire through reading.

It is not enough for children to comprehend, to think about, and to react to the author's ideas. They must take the further step of integrating these ideas and making direct application of them in their own behavior or in their own way of looking at things. By learning to integrate and to make direct application of what they read to their own activities and behavior, children may in time change their outlooks or concepts, modify their purposes and intentions, and determine new courses of action.

The function of reading . . . in promoting mental, social, moral, and emotional growth on the part of boys and girls has not always come in for its full share of attention. The teacher who senses the need for

helping children integrate and apply information gained in reading to satisfy their intellectual curiosities and to enrich important concepts may not always sense the more subtle values reading can have. Through reading, the child should receive help in clarifying his personal goals and ideals; he should also be aided in developing attitudes of consideration toward others, fair play, love of truth, and other desirable social and personal characteristics. For example, application of what has been read is functioning at its most fruitful level when a child, mindful of a parallel situation he has met in reading, consciously chooses a difficult but honorable course of action.

The teacher has three main functions to perform in helping young adolescents integrate and apply what they read to their own activities and behavior. She must make available a sufficient amount of reading material of the right kind, and she must motivate and guide discussions centering around this reading material. In addition, she must capitalize on every possible situation in the classroom for the application of what has been read.

Specific aids . . . for the integration and application of ideas gained in reading are inherent in the Basic Reading Program. The selections in *WONDERS AND WORKERS* are designed to furnish boys and girls with worthwhile ideas, ideals, attitudes, and concepts which they can incorporate into their own thinking, behavior, or activities. Lesson plans in the *GUIDEBOOKS* help the teacher in guiding discussions and capitalizing on everyday experiences in such a way that children are encouraged to use in their own activities ideas they gain from reading. The unit organization of materials in the Readers and in the *THINK AND DO BOOKS* also insures boys and girls the opportunity to read widely about a topic, to integrate ideas gained with what they already know, and thus modify and expand their original concepts and understandings.

LESSON PLANS

A program of systematic instruction . . . in reading based on *WONDERS AND WORKERS* is provided for the teacher in the lesson plans in this *GUIDEBOOK*. The steps in the lesson plans for both prose and poetry selections have already been stated in the Introduction. However, since no two eighth-grade groups are exactly alike, the teacher may need to expand, vary, or abridge these lesson plans according to the needs of the individual pupils.

To provide for the varying needs . . . of individuals in any group, the teacher must know each child intimately—his background of experiences, his interests, his attitude toward reading, and his strengths and weaknesses in reading skills. Knowledge gained from the initial discussion in preparation for reading a given selection often gives the teacher valuable clues about children's general information, their independent reading, and their personal experiences. This knowledge aids not only in building needed background for interpreting the particular selection but also in determining how gaps in information and experience can be bridged through use of additional related reading material.

In guiding interpretation . . . of the story, provision for individual differences may also be made. If a teacher knows a child's specific strengths and weaknesses in reading, she can direct her questions in the light of his ability as well as his experiential background and thus build

up his feeling of security and success. The superior reader may be asked challenging questions which involve difficult judgments and inferences. The slow reader may be asked simple questions, such as "What was Jabe's plan?" The questions suggested in the lesson plans check not only on the understanding of the printed page but also on the child's reactions to the ideas presented. When the children are asked "What do you think about this?" the teacher should respect each individual answer. If the child's reaction seems completely inappropriate, she should try to discover the reason behind it. Through asking questions of others in the group and bringing out the reason for each opinion, the teacher may lead the child to modify his reaction or change his outlook.

Exercises for extending skills . . . and suggestions for establishing essential habits in reading, thinking, and language are given in each lesson plan. The skills and abilities that are emphasized in this section of the lesson plan are strengthened and directly applied as the child uses the THINK-AND-DO BOOK. Each page should be used at the time recommended in the lesson plans and according to the directions provided in the THINK-AND-DO BOOK on the page itself.

The value of extending interests . . . in and expanding the theme of each unit in WONDERS AND WORKERS cannot be overemphasized. In the lesson plans worthwhile suggestions are given for extending interests through wide reading, creative expression, discussions, visual aids, and direct experiences. In addition, many pages in the THINK-AND-DO BOOK present challenging material that expands a given unit theme and that aids in developing the basic concepts, generalizations, and interests that are common to all selections and activities in the unit.

The teacher who uses the lesson plans as the basis for her teaching procedure will find that she has a practical, flexible program which can meet the needs and further the abilities of each child.



Living in America Today

ALL HUMAN BEINGS . . . like to have a sense of achievement, like to feel that they are able to do something that will merit the respect of their fellow men. The selections in this unit highlight the desire for, the struggle for, and the satisfaction that comes from the accomplishment of a worthy objective. The story characters are typical adolescents. Some, like Bess in the story "Shiny Pants," set worthy goals and attain them. Others, like their real-life counterparts, do not always act prudently in achieving their purposes. Witness Ben, who, in his determination not to be called a quitter, endangers his life and loses his prized possession, the boat he has made with his own hands.

This unit about doers will appeal to energetic eighth-graders because the selections contain abundant action and realistically depict the struggles and thrills that come to young people in seeking to attain personal goals.

INTRODUCING THE BOOK

Distribute copies of *WONDERS AND WORKERS* and encourage comments on the title, the pictures, and the general appearance of the book. Then ask pupils to turn to the title page. Call attention to the names of the authors and explain that these three men did not write the selections in the book but collected them from various sources. Tell pupils that they will find the name of the author of each selection on the Contents page and that in this book the author's name also appears under the title on the first page of each story or poem, as on page 8.

Explain that the selections are presented in groups according to the type of wonder or worker described and ask members of the class to skim the table of contents to locate the unit about pioneer workers ("Builders of America") and the one about wonders of nature ("The Outdoor World"). Pupils may then try to determine what kind of wonders or workers they will read about in each of the other units. Boys and girls may also look again at the picture on the cover and then, after examining the table of contents, they might speculate on which selection the picture illustrates.

Call attention to the last group of items in the table of contents—Help Yourself! Bibliography, Glossary, and Pronunciation of Proper Names. Direct pupils' attention in turn to each of these sections at the back of the book:

Help Yourself! (pages 470-519) . . . Have pupils read the introductory paragraph on page 470. Then direct attention to the first paragraph under the title "Rodney's Rocket" and explain that this is called a background note. Mention that not all the stories and poems need background notes and have pupils skim the first few pages of this Help Yourself section to note that even though "Shiny Pants," for example, has no background note, each of the stories has explanations of difficult phrases. Call attention to these explanations and point out that the number of the page on which the phrase occurs is given in boldface type and that the phrase itself is printed in italics. Have pupils turn to page 505 and find the note for page 340, "Mynheer." Explain that help in understanding and pronouncing the foreign words used in the book may be obtained from such a note. Remind pupils that they will really find their reading easier if they make use of these Help Yourself notes.

Bibliography (pages 520-523) . . . Have pupils examine the Bibliography and explain that these particular books have been listed because they provide more of the same kind of reading adventures found in *WONDERS AND WORKERS*. Stimulate interest in reading these books by asking class members to comment briefly on any books in the list that they have already read and enjoyed.

Glossary (pages 524-539) . . . As boys and girls examine this section, explain that it will help them determine the pronunciation and meanings of many difficult words that are not explained in the Help Yourself notes.

Pronunciation of Proper Names (pages 540-542) . . . Tell pupils that many proper names are pronounced in the Help Yourself notes, but that the most difficult ones are also listed here, alphabetically, for quick reference. Ask members of the group to think of situations in which this list will be particularly helpful; e.g., in oral reading, in discussions, etc.

Acknowledgments (pages 543-544) . . . Pupils may be interested to know that this section lists the books and magazines from which the selections in *WONDERS AND WORKERS* were taken and also that the names of the artists who made the illustrations appear under the heading "Illustrators." Artistically-minded pupils may recall having seen the names of some of these artists in other books or magazines. In any event, calling attention to this list of illustrators may create interest in noting the names and works of artists.

INTRODUCING THE UNIT THEME

Interest in reading stories in this unit, "Living in America Today," should grow out of a discussion of pupils' experiences, sports, and hobbies. When ever possible, the teacher should capitalize on opportunities for carrying this discussion beyond mere accounts of activities and invite consideration of how pupils reacted to the various situations and events.

Then lead into a discussion of the first unit by saying, "The stories and poems in Unit I tell of boys and girls who are about your age and who are very much like you. They, like you and your friends, have their own hobbies and personal interests; they have problems; they want to be successful at whatever they do; they sometimes make mistakes; and they sometimes achieve remarkable success."

Rodney's Rocket

PREPARING FOR READING

To introduce the story "Rodney's Rocket," read aloud the first sentence of the background note on page 470 and initiate discussion about recent improvements in rocket ships, about the prospects of sending rocket planes to the moon, etc. Then suggest that the boys and girls read the rest of the background note and the first paragraph of the story to find out for themselves whether "Rodney's Rocket" will be serious or humorous in tone. Encourage members of the class to use the first three notes for page 8 to help them understand the paragraph.

After the silent reading ask pupils what tone the first paragraph sets for the rest of the story. Next ask if anyone knows why Icarus tried to fly. If pupils are not familiar with his story, tell them that Icarus was the son of Daedalus (ded'ə ləs), who, according to an ancient Greek legend, fashioned wings of feathers and wax for himself and his son to escape being imprisoned by an angry king. Icarus met disaster when he ignored his father's warnings and flew too near the sun. Mention that Darius Green was a fictional character who foolishly placed his faith in an unworkable flying machine. Then suggest that as pupils read the story they notice in what way Rodney was like Icarus and in what way he was like Darius.

EXTENDING INTERPRETATION

Introduce the discussion of the story by calling attention to the remarks on page 18 where each of Rodney's friends comments on Rodney's failure. Ask pupils to explain how these remarks show that Rodney was like both Icarus and Darius Green. Pupils should note that Rodney, like Darius, had great ambitions but no sense of practicality and, as Harry said, "will have to wait for a more opportune time to make history." Like Icarus, Rodney failed to heed warnings that were given him. Encourage more detailed comments on the nature of Rodney's rocket and the reasons

why it met disaster. Then turn to a more humorous vein by asking pupils why it was just as well that Rodney did fail in his ambitious attempt to reach the moon.

Next ask, "Did you take Rodney very seriously? Why do you think he took himself seriously?" In the discussion bring out the idea that Rodney thought he was as good as Orville Wright and Robert Fulton, but that he was presumptuous to think so. Point out the paragraph beginning on page 8 in which the boy who is telling the story described Rodney. Ask members of the class what this really tells them about what Harry and his pal thought of their classmate. Clarify this point by such questions as: "Does the narrator mean exactly what he says? What opinion of Rodney is he trying to convey?" If pupils do not understand, point out that this paragraph, although an actual description of Rodney's actions, still reflects the uncomplimentary opinion his friends had of him.

Direct further attention to Rodney's personality by asking, "Do you think Rodney knew how others felt about him? Why do you think he was so eager to impress his classmates?" Pupils should note that Rodney was the victim of his own conceit, and they might bring out the idea that his friends would probably enjoy seeing him learn a much-needed lesson. Next ask the following questions: "How impressive does Rodney seem at the end of the story? What effect do you think his rocket venture will have on Rodney's future experiments? What effect might it have on his 'know-it-all' behavior? How might the whole adventure lead to helping Rodney get along better with his classmates?" The teacher should expect varying answers to these queries and should encourage pupils to furnish reasons to support their various viewpoints.

Continue by asking the boys and girls how they felt toward Harry and toward his pal who told the story. Lead pupils to see that while Rodney was conceited, the other boys were willing to be friendly with him, they were concerned about Rodney's safety in spite of his attempts to use them as guinea pigs, and they had a sense of responsibility and acted without malice toward Rodney. Then ask, "What makes you think the boy who tells the story has as much scientific knowledge as Rodney?" In answer to this question be sure someone mentions the fact that Harry and his friend figured out how Rodney was going to propel his rocket and immediately realized the danger of his undertaking. Bring out the idea that book learning to be useful must be combined with common sense.

Remind the class that the author, Mr. Goldsmith, writes the story as if he were a boy of Rodney's age. Encourage comments on the boyish style and ask pupils to mention amusing passages or expressions; for example, "A vision floated before me of a twisted hulk of metal that had once been Rodney's rocket—with me, a martyr to science, wrapped in it as in a cocoon," and "A car backfired as we hurried down Chestnut Street, and we both nearly jumped out of our shoes." Ask pupils if they think the conversation of the boys seems true to life.

EXTENDING SKILLS AND ABILITIES

Discriminating between shades of meaning . . . To direct attention to shades of meaning and to check pupils' understanding of words used in this story, present the words *revolutionize* and *change*. Pupils should note that these words mean about the same thing but lead the class to see that even though these words are similar in meaning they cannot always be used interchangeably. Ask, "Would you say, 'She revolutionized the time of her lunch hour?' How would you state this idea?"

Continue with the following pairs of words, having members of the class explain or illustrate through use in sentences the differences in meaning between the words in each pair. Pupils may refer to the Glossary or a dictionary, if necessary, to check the meaning of words.

repast—dinner
brilliance—glow
leering—staring

antechamber—vestibule
opportune—proper
extinct—dead

Using a pronunciation key . . . The GUIDEBOOKS for preceding levels in this Basic Reading Program present a sequential program for developing the skills that are essential in using the key in the Glossary at the back of *WONDERS AND WORKERS* to derive pronunciations. This same pronunciation key has been used in all the books in the Basic Reading Program beginning with Book Five level. If any pupils should have difficulty in using the key, refer to the pages listed under "Deriving Pronunciations" in the Index of the GUIDEBOOK for *PATIS AND PATIFINDERS*, Book Seven of the Basic Readers, and reteach these lessons to review the necessary skills.

Ask pupils to turn to the short pronunciation key at the bottom of any right-hand page of the Glossary. Be sure boys and girls understand that

the short key is not complete, but that it will be helpful to them in determining vowel sounds. The teacher should know that in the first printing of *WONDERS AND WORKERS* the key word *oil* was omitted from the short pronunciation keys. Ask pupils to check their keys and if the word *oil* is omitted, have them add it to each of the short keys.

Write the following list of words on the blackboard and have pupils pronounce the words. Then ask the boys and girls to write on a paper the pronunciation of each word. Encourage pupils to use the short pronunciation key for help in writing the pronunciation and remind them to omit all silent letters. As an example of the procedure, the teacher and the class might first work out the pronunciations of one or two of the words together. The correct answers are included in parentheses for the convenience of the teacher.

full (fŭl)
on (on)
yard (yărd)
gum (gum)
foil (foil)
rip (rip)
post (pōst)
flesh (flēsh)
mule (mŭl)

herd (hêrd)
flour (flour)
she (shē)
rude (rŭd)
fire (fir)
mare (mār)
plane (plān)
lord (lôrd)
nap (nap)

Think-and-Do Book . . . Use pages 1, 2, 3, 4. Page 4 provides an individual check of ability to identify vowel sounds and to interpret a pronunciation key.

EXTENDING INTERESTS

Sharing information . . . Members of the class who are interested in airplanes may want to discuss in detail jet-propelled planes and the principles by which they operate. Encourage pupils to speculate on the possibility of reaching the moon on a rocket ship some time in the future and suggest that they watch newspapers for clippings about recent experiments with and improvements on rocket planes. Page 2 of the *Think-and-Do Book* is an excellent follow-up of the interest in rockets. The books listed below may be placed on the reading table.

Aviation Research Associates. *How Planes Get There*.

Neville, Leslie E. *Aviation Dictionary for Boys and Girls*.

Zim, Herbert S. *Rockets and Jets* (superior readers only).

Enjoying poetry . . . The teacher may read aloud to the class the poem "Darius Green and His Flying-Machine," by John Townsend Trowbridge, from *The Home Book of Verse for Young Folks*. This amusing poem should help bring out the humor of the story "Rodney's Rocket."

Satisfying personal interests . . . As pupils read the stories and poems in this unit, "Living in America Today," suggest that they collect pictures and clippings having to do with the activities of boys and girls of their own age. Encourage them also to bring in snapshots or original sketches of themselves engaged in their favorite hobbies. Be sure at this point to clarify the meaning of the word *hobby*, so that pupils understand that any absorbing activity may be referred to as a hobby; for example, music, reading, sports, etc. Group the pupils according to the hobbies in which they are interested and arrange for a special period at the conclusion of the unit in which each group may present information about their chosen activity, including facts about equipment, expense, time needed, etc.

Extension reading . . . A story that pupils may enjoy is *Bag of Smoke: The Story of the First Balloon*, by Lonzo Anderson. Boys and girls will find the Bibliography in *WONDERS AND WORKERS* an aid in locating good books to read independently. To stimulate interest in this Bibliography, have pupils turn to page 520 and look at the titles listed under "Living in America Today" and discuss them briefly.

If there is a public library in the community, eighth-graders should be urged to secure and use library cards. Plan a class visit to meet the librarian and to learn how to use library facilities.

Independent reading of selections from other readers in relation to each unit theme should be a definite part of the reading program. The Bibliography at the back of this *GUIDEBOOK* lists stories that are related in content to the unit selections and the general unit theme.

The difficulty of selections from other readers is indicated clearly for the teacher. Easy selections that can be read by even the very slow reader are not starred. A single star indicates a selection of average difficulty which can presumably be read by any pupil who can read *WONDERS AND WORKERS*. Double stars mark a selection intended for the superior reader. This Bibliography will help the teacher find for each pupil independent reading material that is suited to his ability.

The Cheerful Cherub

PREPARING TO PRESENT THE POEMS

In reading these poems, the teacher should notice that Miss McCann uses the quatrain or four-line stanza form consistently and that the verses seem to be "me talking to myself." These stanzas, telling of things that all of us have thought about or wanted to do, are portraits of different moods. If a copy of *Complete Cheerful Cherub*, by Rebecca McCann, is available, the teacher might read other quatrains by this poet.

"Dishwashing" is a humorous account of a common experience that most people would gladly omit from their daily lives. "Imaginary Portrait" explains how we seldom see ourselves as we really are; instead, we magnify our virtues and minimize our faults. "Source of Sorrow" warns of the dangers of self-pity. "Effort" expresses the wishful thinking that we all do when we talk about achieving great things but never get around to doing them.

PRESENTING AND INTERPRETING THE POEMS

Before presenting the poems, the teacher might show a copy of *Complete Cheerful Cherub* to the class. Call attention to the fact that the pup appears in each illustration and that all the cherub verses are four lines long. Tell the class that Rebecca McCann first wrote and illustrated the poems for her own amusement. Explain that she was a writer for various newspapers and, by accident, a newspaper editor saw the poems. Soon Miss McCann was writing her verses for a daily syndicated feature. Her aim never seemed to be to reform the world or to make everybody smile, but rather to make the verses mirror human faults and virtues.

Have pupils read "Dishwashing." Then ask, "Why do you think many people would agree with the poet about dishwashing?" Let the boys and girls name other tasks they would like to get rid of. Encourage pupils to compare the suggestions made by the girls with those made by the boys.

Before pupils read "Imaginary Portrait," explain briefly how photographers can alter or change pictures to take out wrinkles, double chins,

improve the shape of eyebrows or hairline. This process is called "retouching." Then ask, "How many of you have ever said, when you saw a snapshot of yourself, 'Oh, that's just a terrible picture of me?'"

After members of the class have read the poem silently, ask them what they think the last line of the poem means. Extend the discussion of this meaning—that we all "retouch" ourselves by picturing ourselves as nicer than we are—by telling the group that another poet, Robert Burns, spoke of the same idea. Have pupils explain what Robert Burns meant by these words and compare his idea with Miss McCann's.

*"O wad some Pow'r the giftie gie us
To see ourselfs as ithers see us!
It wad frae monie a blunder free us,
An' foolish notion."¹*

After pupils have read "Source of Sorrow," ask the boys and girls how they manage to get themselves out of a mood of self-pity. Encourage members of the class to recall times when they felt gloomy or blue and then forgot about themselves when they became interested in something or someone else. Ask, "What suggestions would you make to a person who is feeling sorry for himself?"

Initiate a discussion of some of the things members of the class would like to do or be. Then ask, "Did you ever intend to do something that you gave up because it was too much work? Were you sorry afterward? What often happens to New Year's resolutions?" After pupils have read "Effort" silently, lead them to discuss whether or not they think the poet is realistic in these verses.

ORAL INTERPRETATION

Each of the poems may be read aloud by a different pupil. The class should need no special guidance or preparation for the oral reading.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 5, which gives another slant on seeing ourselves as others see us.

Enjoying poetry . . . If a copy of *Poems for Modern Youth* is available, the teacher might read "To a Photographer," by Berton Bracey.

¹Robert Burns, "To a Louse."

Suggest that pupils may also like to read the following poems: "Phizzog," by Carl Sandburg, in *Good Morning, America*; "My Sense of Sight," by Oliver Herford, and "I'm Glad," author unknown, in *The Home Book of Verse for Young Folks*; "Only My Opinion," by Monica Shannon, in *My Poetry Book*; and "Nonsense Rhymes," by Gelett Burgess, in *This Singing World*.

Creative writing . . . Those pupils who are interested might try writing and illustrating original quatrains about some of their own everyday experiences. These poems might be concerned with serious or humorous situations at home or at school.

◀ PAGES 20-34 ▶

Ben Bartlett's Banner

PREPARING FOR READING

As in "Rodney's Rocket" the background note gives a clue to the author's mood. Have the class read the note on page 471 and then turn to page 20 to read the first few paragraphs. Encourage pupils to compare this introduction with the opening paragraph in "Rodney's Rocket." Elicit that the author writes of Ben with sympathy, while the author of "Rodney's Rocket" tries to make us chuckle over Rodney even in his opening remarks. Suggest that the pupils read the rest of the story to see what Ben's dream was and what happened to him in fulfilling it.

EXTENDING INTERPRETATION

After the silent reading, ask pupils what Ben's goal was in entering the race and whether or not he achieved it. Members of the class may have varying answers, but they should note that Ben wanted to prove that he was not a quitter, and that he succeeded in doing so. Continue the discussion with such questions as: "Do you think Ben's goal was a worthy one? Can you understand why it was so important to him to prove to Stanley that he wasn't a quitter? Was he a quitter for turning back the first time he raced Stanley? Explain your answer." Recall that Ben was unwilling to break his promise to his grandmother and point out his perseverance in planning his boat, building it himself, and entering it in

the race against Stanley's sleek motorboat. Then ask the following queries: "Do you think Ben's moral victory over Stanley was worth losing the boat, risking his life, and worrying his grandmother? Do you think he could have achieved the same goal in a better way? How? Which boy, Stanley or Ben, do you admire more? Why?"

Ask pupils if they have ever been faced with making the kind of choice that Ben had to make when he saw the bow of the freighter looming above him. Have them tell how they decided and explain why making such a decision is difficult.

Next encourage pupils' reactions to Granny by asking whether or not the boys and girls think her laws at the island were reasonable and fair, and why they think it was hard for her to decide to let Ben participate in the Labor Day free-for-all. Bring out that Gran was afraid of the risks that Ben would have to take in racing the *Star* and that she made her demands only to ensure his safety. Then ask, "Do you think that Granny was wise in giving Ben permission to enter the race? What makes you think as you do? How do you know that she had good reasons for fearing the race?"

Call attention to the title of the story and ask such questions as: "What was the significance of the banner? On what occasions do you think Ben might have felt as though his grandmother did not understand his problems?" Lead boys and girls to note that Ben probably could see no good reason for having to turn back at Slauson's Point and that he probably could not understand Granny's objection to an outboard motor. Then ask how at the end Ben showed his appreciation for his grandmother's interest in him. Tell the group that one person who read this story said, "Ben lost the race, yet really won it." Have pupils tell what they think that person meant.

EXTENDING SKILLS AND ABILITIES

Reading for detail . . . To help pupils visualize the race and to review the details of the story, copy on the blackboard the diagram found on page 472 in the background notes. Ask one member of the class to chart the events of the race on this diagram as they are suggested by other class members. For example, Ben's boat should be charted ahead of Stanley's and the others' at point B when they rounded the buoy the first time. At point C the *Star* was forced to slow down. At point C on

the second lap, Ben and Stanley were neck-and-neck, but Stanley was taking the lead. On the third and final lap Stanley stopped before reaching point C, but Ben continued around the buoy, reaching a point just beyond the freighter when his boat capsized.

Comprehending definitions . . . To give practice in using the Glossary to derive word meanings, write the following questions on the blackboard. Ask members of the class to answer them and give reasons for their answers. Have pupils check both their answers and their reasons by looking up the boldfaced word in each sentence in the Glossary.

1. Did it take *technical* knowledge to build a boat like Ben's?
2. How was the sound of Ben's hammer and saw as he built the boat like a *serenade*?
3. Do you think Ben kept his boat *immaculate*?
4. Did Ben's boat *yaw* when he saw the freighter coming down upon him?
5. When Ben stood dripping in the cockpit, did he look *jaunty*?

Deriving pronunciations from the Glossary . . . To develop further understanding of the principle that a given sound is always represented by the same symbol in the pronunciations in the Glossary of *WONDERS AND WORKERS*, proceed as follows:

Write the known words *fatal*, *fuel*, *pencil*, *symbol*, *hopeful* on the blackboard in a column. Ask pupils to pronounce the first word and tell which syllable is accented and whether the vowel sound in the accented syllable is long or short. Then say, "This is the way your Glossary would show the pronunciation of the accented syllable." Write *fā'* after the first word. Continue in like manner with each of the other words in the list, printing the pronunciation of each accented syllable; e.g., *fā'*, *pen'*, *sim'*, and *hōp'*. Call attention to the fact that there is a different vowel sound in each of these accented syllables.

Then ask pupils to pronounce all five words and tell whether or not they all have the same vowel sound in the unaccented syllable. When pupils agree that all have the same vowel sound, explain that this is a soft unaccented vowel sound. Then print the pronunciation of the unaccented syllable in each word; i.e., *təl*, *əl*, *səl*, *bəl*, *fəl*. Compare the spelling and pronunciation of the unaccented syllable in each word, leading pupils to note that in the spellings, different letters stand for the same vowel sound, but in the pronunciation, one symbol—the schwa (ə)—is used. Repeat the above procedure with *helper* (*hel'pər*) and *sailor* (*sāl'ər*).

Have pupils turn to the Glossary in *WONDERS AND WORKERS*. Say, "I'm going to ask you to look up the pronunciation of some words that have only long, short, and unstressed vowel sounds in them. Find these entry words in your Glossary and see if you can pronounce them." Write the following words: *chaplet, consecutive, dilapidated, excavator, facility, joree, laconic, manifest, morality, pedagogue, radium, reputedly, simultaneous, stagnant, tamarind, theory, tremulous*.

Think-and-Do Book . . . Use pages 6-7.

EXTENDING INTERESTS

Extending concepts . . . For information about how to build model boats, refer pupils to Chapter III of *Outdoor Handicraft for Boys*, by A. Neely Hall; copies of *Popular Mechanics Magazine* or *Popular Science Monthly*; and *Building the Small Boat*, by Cliff Bradley.

Making an exhibit . . . Pupils who collect ship models might bring several to school. These boats may be arranged according to type or size, along with pictures of various models.

Extension reading . . . "Denny Puts in His Oar" and other short stories about sports may be found in *Shift to the Right*, by B. J. Chute.

◀ PAGE 35 ▶

Archery

PREPARING TO PRESENT THE POEM

In preparing to present this poem to the class, note with what detail the making of the bow and arrow is described. Also notice that the last stanza tells of the thrill that comes when the archer tries out his bow and arrow and finds them perfect.

The teacher should know that lemonwood is no relative of the tree upon which lemons grow. Rather, the wood gets its name from its natural color. The real name of lemonwood is *dagame* (dāi gā'mō). It is an ever-green tree that grows in tropical America and South Africa. Although lemonwood has to be imported, it is still one of the cheapest and most satisfactory woods for bow making.

The teacher should plan to paraphrase this fairly technical poem for the pupils. Her paraphrasing may be similar to the following:

Carve a stick of yellow wood
With a knife;
Shave and smooth and make it shiny,
And when your bow is made,
It will have the yellow color
Of newly ripened corn.
Cover each end of the bow
With bright, snugly fitting tips of cow horn,
Then varnish it until it shines,
Wrap the place where the archer's hand goes, and see
How beautiful a slender piece
Of wood can come to be.

Put points on the arrows, glue the feathers on,
And wax the string of the bow—
A bow and arrow in the hands
Is such a graceful thing!
The archer's muscles tighten as he pulls,
The arrow leaves the bow,
And the target has a feathered arrow
Vibrating in the center!

In the first stanza the poet describes the making of the bow and in the second stanza the construction of the arrows. Then the maker tries out his handiwork and enjoys the thrill of accomplishment when the bow and arrow work perfectly and the arrow flies to the heart of the target.

PRESENTING AND INTERPRETING THE POEM

Let pupils discuss what they know about archery and, if any members of the class have ever made bows and arrows, encourage them to tell of their experiences briefly. Explain that this selection is unusual because the poet has indicated in such careful detail how bows and arrows are made. Clarify the meaning of *lemonwood* and read aloud the paraphrasing of the entire poem while pupils follow the poem in *WONDERS AND WORKERS*. Since this poem does not lend itself to oral reading, pupils should have an opportunity to read it silently following the paraphrasing.

If some members of the class disagree with the methods of making bows and arrows as suggested in the poem, explain that the poet has told

of only one way, and that archery experts do not agree among themselves that there is any one best procedure to follow.

Then ask, "What do you think is the poet's main idea in the last stanza? Why is it more satisfying to make something yourself than to buy it at a store? Do you think Ben Bartlett's loss was greater because he had made the boat himself? Give reasons to support your viewpoint."

Encourage discussion of pupils' own experiences in making things by asking such questions as: "Did you ever get the same kind of thrill that the archer did from making something yourself? Which of the story characters that we have studied enjoyed working by themselves? What professions or ways of making a living can you think of where people work by themselves?"

EXTENDING INTERESTS

Extending concepts . . . Read the following paragraph to the class:

" . . . He always had to stop by places that had shining perfect things in them. He loved hardware stores and windows full of accurate geometric tools. He loved windows full of hammers, saws, and planing boards. He liked windows full of strong new rakes and hoes, with unworn handles, of white perfect wood, stamped hard and vivid with the maker's seal. He loved to see such things as these in the windows of hardware stores. And he would fairly gloat upon them and think that some day he would own a set himself."¹

Then ask such questions as: "What are some of the things you know about this boy now? Is he the sort of person who would make his own bow and arrows? Explain your viewpoint. Does this paragraph remind you of anyone that you have ever known or read about?"

Enjoying poetry . . . If time permits, the teacher might read the following poems to the class: "The Archer," by Clinton Scollard, in *Gaily We Parade*; and "The Arrow and the Song," by Henry Wadsworth Longfellow, in *One Thousand Poems for Children*.

Locating information . . . Pupils interested in archery should be referred to: *Archery*, by N. Reichart and G. Keasey; *Bows and Arrows*, by James Duff; Chapter XXVI of *Outdoor Handicraft for Boys*, by A. Neely Hall; and Chapter I of *Sport for the Fun of It*, by John R. Tunis.

¹Reprinted from "A Lost Boy," in *The Hills Beyond*, by Thomas Wolfe, by permission of Harper & Brothers.

Shiny Pants

PREPARING FOR READING

Tell the members of the class that this story is about a girl who had something important she wanted to achieve—something more urgent than either Rodney's desire to make a rocket or Ben's desire to be in the race and not be labeled a quitter. Explain that the story centers not only around Bess but also around a promising horse known as "Shiny Pants." Mention that Shiny Pants is to be entered in the horse show at a rodeo and from their experience of seeing various animal shows, see if pupils can suggest what a horse might be expected to do in such a show. Ask, "Do you think it is easy to train a horse to obey commands? Why or why not? What kind of training do you think would succeed best?"

Mention that the story contains much cowboy vernacular. Call attention to the phrase "cighty and found" on page 36 and the words "rope-wise" and "sensible" on page 37 and tell the pupils that they will find the Help Yourself section especially useful in clarifying the meaning of such expressions.

Tell the class that the girl in this story was called a "chip off the old block" and ask what this expression means. If no one knows, refer pupils to the explanation on page 475 in the Help Yourself section. Then suggest that pupils read to find out why Bess Travers was rightly called a "chip off the old block."

EXTENDING INTERPRETATION

After the selection has been read, initiate discussion by such questions as: "Why do you think the story was entitled 'Shiny Pants' rather than 'Copper'? How did Bess achieve the reputation of being a 'chip off the old block'? What had her Dad said that helped Bess through her difficulties?" ("... there's some things a man has to do. So he does 'em.'")

Have pupils describe a quarter horse and ask them to recall the special qualities needed for a good quarter horse (courage, strength, speed, etc.).

Then have the class skim the story to find incidents in which Shiny Pants exhibited one or more of these qualities.

Call attention to the first-person form of this selection, telling the group that the author has related the story as if one of the characters were telling it. Ask pupils if they can recall any other story in the book written in the first person ("Rodney's Rocket"). Give various members of the class an opportunity to discuss what they like or dislike about this form of writing.

Lead pupils to compare the motives of Rodney, Ben, and Bess. Pupils should recall that Rodney and Ben each sought a goal for selfish reasons while Bess wanted to achieve her purpose to please her father. Then say, "Compare the feeling of Bess for her father with that of Ben for Granny. How did the way Bess worked compare with the way Rodney and Ben worked?" Pupils should note that all three were happy working alone, that all had developed some skill, that each had a definite purpose toward which he was working, and that each had enlisted the help of an adult to some degree, Bess being the most independent.

EXTENDING SKILLS AND ABILITIES

Identifying methods of characterization . . . Initiate an informal discussion of ways a reader may become familiar with the characters in a story by asking such questions as: "When you read 'Shiny Pants,' how did you find out the sort of person Bert was? How did you learn to know what Bess thought and felt about her problems? In the stories about Rodney and Ben, how did you come to understand their struggles?"

Elicit that Bess tells the reader much about Bert and that his conversations and actions tell more about him; Bess, by her personal opinions and by her activities, reveals herself; the manner in which Rodney and Ben attack their problems, what their friends think of them, as well as details noted by the authors help us know Rodney and Ben.

To point up this discussion, have pupils turn to page 36, skim it quickly, and tell how they are aided in finding out what kind of person Dad is.

Using background notes . . . To check on pupils' independent use of the background notes, the teacher might ask members of the class to give in their own words the meanings of the following expressions: "eighty and found," "rope-wise," "stall kinks," "reined him right and left," "put

the leather on," "sunfished," "trailed the reins," "had heavy hands," "take a blue," "broke on the turns," "dusted around," "wrote a screaming eleven." If pupils have difficulty with a specific expression, suggest that they turn to the background notes for this story and find the explanations given there.

Adapting definitions to context . . . This lesson is designed to check pupils' ability to comprehend definitions of meaning in the light of given context and to adapt these definitions to context. At preceding levels in the Basic Reading Program, training has been given in using or adapting definitions to fit a given context in four different ways: (1) substitution—substituting a synonym or synonymous phrase for a given word in a sentence; (2) transposition—changing the order of words to fit a defined meaning in a given context; (3) simple paraphrasing—adapting a definition of a word to fit a context that uses an inflected form of the word; (4) paraphrasing—rewording context and definition to make clear the meaning of the total sentence in which the defined meaning is used.

To check pupils' ability in adapting definitions to context, write the following sentences on the blackboard:

1. The *sting* of the *quirt* only made Copper fight back.
2. Training a quarter horse was a very *arduous* job.
3. When Bess couldn't find a rider, she *surmised* that everyone had heard about Copper.
4. Neither Rusty nor his *predecessor* knew how to handle Copper.

Ask various class members to read the first sentence silently, turn to the Glossary at the back of *WONDERS AND WORKERS*, find the word *quirt*, and read the definition. Then have someone read the first sentence, substituting the words *riding whip* for the word *quirt*. After pupils have read the second sentence and have located the definition for *arduous* ("hard to do; requiring much effort"), ask, "How can you make this definition fit into the sentence?" Elicit that the order of words in the sentence must be changed; for example, "Training a quarter horse was a very hard job to do." The italicized word in the third sentence is *surmised*, and the Glossary gives the definition for *surmise* as "guess." When pupils try to fit this definition into the context, they will readily see that we would not say, "When Bess couldn't find a rider, she *guess* that everyone had heard about Copper"; we would say, "she *guessed* that everyone had heard about Copper." The fourth sentence presents the problem of complete

paraphrasing. Since the definition of *predecessor* is "person (or thing) that came before another," lead pupils to see that they must reword the definition and sentence; i.e., "Neither Rusty nor the person who had tried before him knew how to handle Copper."

Then write the sentences given below, underlining the boldfaced words. Ask pupils to read the first sentence, look up the underlined word in the Glossary, read the definition, and rewrite the sentence without using the word *leered*. Continue in the same way with the other sentences. When all sentences have been rewritten, have various members of the class read their sentences aloud. As each sentence is read, discuss what had to be done to fit the meaning of the given word into the context in which it was to be used. Suggested restatements for each sentence are given in parentheses for the convenience of the teacher.

1. I disliked the way he *leered* at her.
(I disliked the evil glance that he gave her.)
2. The pupil was completely *nonplussed* by the sudden question.
(The pupil was completely puzzled by the sudden question.)
3. The art student carved square book ends from a *cylindrical* block of wood.
(The art student carved square book ends from a block of wood shaped like a cylinder.)
4. The article was too *technical* for her to understand.
(The article contained so many mechanical and scientific details that she could not understand it.)
5. Stories, songs, and poems have *immortalized* many heroes.
(Stories, songs, and poems have given everlasting fame to many heroes.)
6. The scientist was studying *extinct* species of animals in America.
(The scientist was studying species of animals no longer existing in America.)

Think-and-Do Book . . . Use pages 8, 9, 10, and 11. Page 10 provides further practice in adapting definitions to context.

EXTENDING INTERESTS

Satisfying personal interests . . . Members of the group who are particularly interested in race horses may have already collected pictures and clippings about such famous race horses as Man O' War, Seabiscuit, Whirlaway, and Equipoise. Others might like to collect pictures and material on different breeds of horses. *Thoroughbreds*, by C. W. Anderson, might be suggested to those who want more technical information.

Preparing a radio script . . . Some pupils may be interested in adapting "Shiny Pants" into a radio script and later dramatizing it in that form. The pupils might divide the story into different scenes and act each out before dramatizing the entire story. The last scene—where Bess is at the horse show—might be presented from the viewpoint of a radio announcer broadcasting the event. To secure help in producing sound effects, refer pupils to the selection "Sound-Effects Man," on pages 134-139 of *PATIS AND PATIFINDERS*.

Extension reading . . . For pupils who enjoy stories about horses, suggest some of the following: *Tiger Roan*, by Glenn Balch; *High Hurdles*, by Frances Duncombe; *Silver Saddles*, by Covelle Newcomb; *Thunderhead* and *My Friend Flicka*, by Mary O'Hara. Boys and girls should also refer to the Bibliography on page 520 of *WONDERS AND WORKERS* for additional books. The teacher might suggest *Melindy's Medal*, by G. Faulkner and J. Becker, as an excellent choice.

EXTENDING THE UNIT THEME

Identifying character traits . . . In a summary discussion of the persons appearing in the stories and poems of this unit, ask pupils to name the leading characters with whom they have become familiar. After writing the names on the blackboard, elicit from the class the chief qualities of each and write them on the board after the appropriate name. Then ask the pupils how they think these characters would have acted had they been transferred to other stories in the unit. For example, "What do you think Bess would have done had she been in the race with Stanley Coleman? What success do you think Rodney would have had in training Copper? What would Ben have done were he making a rocket?" Encourage the pupils to volunteer situations from their own experiences in which each character might be placed and have the class speculate as to how that person might behave. Lead pupils to suggest ways by which people like Rodney can be made to feel a part of the group and be aided in overcoming their tendencies toward working and playing alone too much of the time.

Then say, "Each person in this unit had a definite goal toward which he was striving. What are some goals that you think you and your friends should have?"

Sharing reading experiences . . . A special period should be arranged during which class members might discuss the books, stories, articles, and poems which they have liked and found helpful in their outside reading. At the same time there should be an opportunity for exchange of ideas among those who have read the same books, articles, or poems. Pupils might wish to read aloud favorite poems or colorful and dramatic incidents in stories they liked. Have pupils also mention the specific references they have used in exploring their own hobbies; i.e., books, encyclopedias, and photographs. After this discussion find out which of the books suggested in the Bibliography on page 520 of *WOMEN AND WORKERS* they have read. In the same way, determine how widely pupils have read from the Bibliography of selections from other readers given at the back of this *GUMENOOK*. Remind pupils that the list of stories for Unit I will be kept available for those who have not had a chance to read the suggested books and stories.

Materials that have been read by individual pupils and are related to the unit theme should be brought to the classroom and displayed on the reading table. To give pupils an opportunity to participate in group responsibility, three committees might be appointed—one to assume charge of supplementary books, one for book displays, and one for periodicals. From time to time during the year membership of these committees should be changed to give many pupils the responsibility of being in charge of different types of material.

Planning a newspaper . . . At this time the class may enjoy planning and publishing a simple class newspaper in which the pupils can report their hobbies and activities. The publishing of such a paper for classroom use can be made very simple through the use of a typewriter and duplicating materials. Illustrations may be drawn freehand.



Builders of America

THE STORIES AND POEMS IN THIS UNIT . . . help foster a keen appreciation of the part that the common man has played in building our nation. Since the time of the founding fathers, Americans have been "nation builders." Farmers and factory workers, soldiers and teachers—in short, people from all walks of life have helped to develop and build America. Much that these people accomplished was not as spectacular as were the achievements of the pathfinders who have become famous. Nevertheless, even though these builders have sometimes passed unnoticed in the huge panorama of American life, they, too, have possessed vigor, courage, and the faculty of never being satisfied with past achievements.

These qualities are portrayed vividly in the five selections of the unit. Pupils will be stirred by Matt Over's experiences in the New World and by Deborah's sacrifice for the Revolutionary cause. Boys and girls alike will thrill with Jabe at the magnificent performance

of the *Flying Cloud* and then wish that they, like Charlie Hogan, might sit at the throttle of Engine 999 and see the mileposts go "flying by like a picket fence." Likewise, pupils will have the opportunity to share with the soldiers of Kluane Lake a personal feeling of satisfaction on watching the first truck roar over the tape and of knowing that once again the impossible has been done.

The slogging, marching rhythm of "two hundred wagons, rolling out to Oregon" and the "strong melodious songs" of the workmen form a fitting undertone for the whole unit of "Builders of America." The poetry of the unit not only makes a real contribution to the development of the unit theme but also familiarizes pupils with the works of such fine authors as Arthur Guiterman, Walt Whitman, and Carl Sandburg.

The selections in this unit are arranged in chronological order with a time span ranging from the landing of the Pilgrims in 1620 to the completion of the Alcan Highway in 1942. This wide range of time, together with the diversity of the characters portrayed, will help give young readers an appreciation of the continuity of our historical development and an understanding of the courage, devotion, determination, and inventiveness of the people who have built America.

INTRODUCING THE UNIT THEME

The teacher might approach the reading of the stories and poems in Unit II by calling attention to the unit title, "Builders of America." Ask pupils who they think some of the builders of America are. Lead the boys and girls to recall the names of some of the leaders of American history (George Washington, Daniel Boone, Thomas Jefferson, Lewis and Clark, etc.). Explain that the term "builders" applies not only to these leaders but also to all the other people who helped these pathfinders accomplish their goals.

Be sure boys and girls understand that even though the quality of leadership is important to the accomplishment of a goal, followers—everyday people who believe in and who will work for the goal and thus give power to the leader—are as necessary to the achievement of the aim as the leader himself. At this time the teacher might read the poem "Columbus," by Joaquin Miller (pages 60-61 of *PATHS AND PATHFINDERS*) and then ask, "Do you think the members of Columbus' crew could be

called good builders?" Stimulate additional thought by having pupils mention possible goals that might inspire builders; e.g., the desire for freedom, the desire to live a better life, the desire to create a needed invention. Call attention to the fact that in all stages of the world's development there have been builders—some famous, but most of them people about whom little is known—and that they may be found in every field of activity. Explain that only a few of these unsung heroes have been chosen to be presented in this unit; then say, "Not all the characters about whom we shall read actually lived, although many people just like them did live. The authors, however, have presented the characters so realistically against a background of historical events that they will seem real to you."

Explain that the stories and poems in Unit II have time settings ranging from the settling of the New Plymouth Colony to the building of the Alcan Highway. (The specific time setting for each story is given in the Help Yourself notes.) Suggest that the poets and authors have graphically described the hardships, discouragements, and triumphs of people living in various areas and that they have, at the same time, vividly portrayed the dogged determination and devotion to high ideals that have made such people truly builders of a great nation.

◀ PAGES 54-67 ▶

News from the New World

PREPARING FOR READING

Introduce the story by asking pupils what they think is meant by the term "the New World"; then have them turn to page 476 and read the background note. Since the history behind "News from the New World" will be familiar to many eighth-graders, additional information may be elicited from the class. The localities in England, Holland, and America that enter the story should be pointed out on a wall map to provide background for the discussion.

Either the pupils or the teacher should bring out the following facts: Because of religious persecution under King James, a group of Separatists—

common farming folk from Scrooby, England—fled to Holland, where they enjoyed freedom of worship for thirteen years. Then, dissatisfied because they had to forsake farming and turn to mechanical labor and because their children were adopting Dutch ways, the Separatists decided to come to America. They returned to England, where they were joined by others having the same desire, and the group succeeded in securing rights from the London Company to settle in Virginia. In September 1620, one hundred and two persons set sail from Plymouth on board the *Mayflower*. After a stormy passage, they reached North America in November and sailed southward toward the land that had been granted them (Virginia). However, they became badly frightened by dangerous shoals and returned north, landing at Cape Cod in Massachusetts.

Suggest that pupils try to picture themselves as members of the group of Pilgrims arriving on the *Mayflower*. Say, "How do you think you would feel if you were to land in a strange country unsettled by white men?" Call attention to the month of the Pilgrims' arrival and ask, "What are some of the hardships you would expect to meet at that time of year in this new land?" Have the class read Matt Over's letters to learn some of the stirring experiences he and his fellow settlers had. Remind pupils to refer to the Help Yourself notes as they read.

EXTENDING INTERPRETATION

Lead into a discussion of the letters by asking such questions as: "Why do you think that first winter in New Plymouth was such a difficult one for the settlers? What do you think was the greatest danger or hardship that Matt and the other colonists encountered? If you had been there, at what time would you have felt most like giving up? When do you think Matt was most afraid of the future and what it might hold for the little band?" Mention that much of our source material in history has come from the examination of letters written by people of a given era and ask pupils to explain why such letters are so helpful; e.g., they give detailed, "personalized" accounts to aid the historian in reconstructing the life and times of such eras.

To give further insight into Matt's character, ask the boys and girls what things they learned about Matt from his letters. Encourage pupils to cite instances showing that he was cooperative, adaptable, matter-of-

fact, and good-natured. Conclude by asking how the author makes Matt seem like a boy who really lived.

Encourage discussion of the incidents described by asking the boys and girls why they think the author added things that really did not happen—for example, the gunpowder explosion. Lead pupils to see that fictional accounts like this add to the general interest and often help give an understanding of problems encountered by the people who lived at that time.

To promote understanding of the Pilgrims' reasons for coming to America, ask, "How do you think Matt's mother will feel about her new home with its many dangers and discomforts?" Pupils should understand that the liberty she will enjoy in the colony and the happiness of being with her own family will more than make up for the many discomforts she will experience. Explain that the letters faithfully portray the Pilgrims' independence and desire for freedom and ask what one paragraph best shows the character of these builders and their reasons for coming to the New World. If the fifth paragraph on page 60 is not mentioned, have it located and ask a class member to read it orally. Elicit the qualities portrayed; then say, "Do you think the Pilgrims made a wise choice in their four cornerstones? How was each of them shown in the New Plymouth Colony?" In the ensuing discussion lead the class to see that these cornerstones are still of fundamental importance to the American way of life.

EXTENDING SKILLS AND ABILITIES

Summarizing . . . To promote the ability to select main ideas, have pupils skim each letter and write headings that summarize the chief events recorded in each. When the individual lists are completed, a group list might be compiled and recorded on the blackboard in the following form:

Letter I The week after St. Nicholas' Day
 Arrival in the New World
 Early explorations and discoveries by the party
 Gunpowder explosion on the ship

Identifying characteristic expressions . . . To promote the ability to identify elements of style, tell pupils that in this story the author has had Matt use many expressions common to that period in history. The teacher might list on the blackboard or give orally such expressions

as those below. Then ask class members to explain in their own words the meaning of each. Continue by having pupils skim the selection to find other examples.

"we *bend* to the labor right willingly" (page 58) (submit)

"both *sorely* ill" (page 59) (seriously)

"we cannot *bide* inside our dwellings" (page 61) (remain)

"know *ought* of value or interest?" (page 66) (anything)

"*mayhap* on the return trip" (page 67) (perhaps)

Structural analysis . . . To promote the ability to identify a root word as a meaning unit in a derivative, write the following words and definitions on the blackboard:

harm—hurt; damage.

harmful—injurious; hurtful.

harmless—doing no harm; not harmful; such as would not harm anyone or anything.

unharmed—not harmed or damaged in any way.

In discussing the words and definitions with the class, bring out the fact that *harm* is the root word in each of the words and that it retains its meaning ("hurt" or "damage") in each of the words formed from it. Have individual children underline the root word in each derivative and identify the suffix or prefix that is added to the root word. To clarify further the meaning of each suffix or prefix and the grammatical use of the root word or derivative, ask pupils to use each of the words in an oral sentence. As the next step, write the following on the blackboard, underlining the boldface word in each of the sentences.

observe 1. see and note; notice. Did you observe anything strange in the man's conduct? 2. examine closely; study. An astronomer observes the stars. 3. remark. "Bad weather," the captain observed. 4. keep; follow in practice; as, to observe silence, to observe a rule. 5. show regard for; celebrate; as, to observe Christmas.

1. The burglar entered and left the house *unobserved* by the neighbors.
2. We always consider the *observance* of someone's birthday an excuse for a party.
3. That *observatory* has one of the best telescopes ever made.
4. Scientists must be careful *observers*.
5. Pedestrians should always be *observant* of traffic rules.
6. "Nice day, isn't it?" was the doorman's usual *observation*.

First call attention to the word *observe* and discuss the five definitions for this word. Then ask pupils to read the first sentence silently and decide which meaning of the root word *observe* is found in the underlined word in this sentence. Continue with the other sentences.

Think-and-Do Book . . . Use pages 12 and 13. Page 13 provides for further practice in identifying root words as meaning units in derivatives and inflectional variants.

EXTENDING INTERESTS

Visualizing story setting . . . Tell pupils that this period in history has proved very inspirational to many great artists and suggest that they try to find some of the famous pictures based on it. Notable examples for which pupils might look are the following: "The Mayflower in Plymouth Harbor," by W. W. Halsall; "The Signing of the Mayflower Compact," by J. L. G. Ferris; "The Landing of the Pilgrims," by C. M. Paddy; and "Pilgrims Going to Church," by G. H. Boughton.

Pupils who like to work with their hands may enjoy creating a table model of the settlement at New Plymouth as described by Matt Over. They may be interested in comparing their model with pictures of the early Plymouth Colony given in encyclopedias and reference books.

Satisfying personal interests . . . Suggest that members of the class begin a collection of pictures and original sketches of objects mentioned in the selection: doublets, besoms, trivets, spits, etc. *The Album of American History (Colonial Period)* will be helpful in providing pictures of actual articles used in early Massachusetts.

Enjoying poetry . . . "The First Proclamation of Miles Standish," by Margaret J. Preston, and "Landing of the Pilgrim Fathers," by Felicia D. Hemans, both in *American History in Verse*, are poems that pupils will enjoy reading or hearing. The teacher might also tell the story of "The Courtship of Miles Standish," by Henry W. Longfellow, in *Poetry Book (7)*, and read portions of the poem to the class.

Extension reading . . . Interest in reading other stories about early America may be stimulated by calling attention to the following: *Soldier Rigdale*, by Beulah M. Dix; *Puritan Adventure*, by Lois Lenski; *Calico Bush*, by Rachel Field; *Beppy Marlowe of Charles Town*, by Elizabeth J. Gray; and *Barnaby Lee*, by John Bennett.

A Coat for a Soldier

PREPARING FOR READING

Approach the reading of "A Coat for a Soldier" by telling the class that this is a story of people who lived in Massachusetts near New Plymouth over one hundred and fifty years after the events recounted in "News from the New World." Encourage suggestions on other great things that were happening in America about that time. Then have the pupils read the background note on page 478 and encourage them to ask any questions necessary for the understanding of the note. Next read the last sentence of the background note aloud, continuing, "Read the story to find out what this young American is dreaming and whether her dream comes true."

EXTENDING INTERPRETATION

After the story has been read, initiate discussion on why Debby is happy when the story ends even though her dream did not come true as she had at first planned. Pupils should point out that when Debby voluntarily gave up her plan for a cloak after the need of the soldiers was pointed out, she did so with a feeling of satisfaction. Then ask such questions as: "Do you think that Debby was unusual in feeling the way she did? Why? Have you ever felt a similar satisfaction on doing or giving up something for someone else?" Draw out of the discussion the idea that real happiness often lies in serving others and in working for the good of the group.

Ask whether class members think the central idea of the story—the making of coats for soldiers by the women of the colonies—is based on fact. Pupils may answer with material gleaned from their own historical reading. The teacher might explain that the story is indeed based on fact and that when George Washington took command of the American army in July 1775, most of the 16,000 troops who lined up before him wore the ragged remnants of their everyday clothing. Next to food, guns, and gunpowder, the most urgent need was clothing for the soldiers. There was not enough woolen cloth in all the colonies to make the required

number of garments, even had there been sufficient money to buy the wool. Washington suggested to the Provincial Congress of Massachusetts that the women of New England be asked to spin, weave, and sew 13,000 coats for the troops; and by November the coats were ready, each one labeled with the name and village of the woman who had made it.

In discussing the work on the coats, ask how Debby felt about the women making coats. ("We're an army, too. . . . We're fighting for the Cause of Freedom in a way of our own.") Also encourage the class to elaborate on the idea that these women and girls could certainly be considered an army. Suggest that boys and girls recall the names of some of the women who became famous during the time of the Revolutionary War—Betsy Ross, Molly Pitcher, and others—and ask if these women could be called builders. As the concept of builders is discussed, draw attention to the women of the times who spun, wove, sewed, and took care of the farms while the men served in the army—women whose names are unknown but who were also builders in the fullest sense of the word.

Point out that although the incident on which "A Coat for a Soldier" is based is true, Washington is the only historical character that is mentioned. Recall to pupils the selection "Out of Defeat" (pages 62-76 of *PATIS AND PATIFINDERS*), in which Washington appeared as a young man who "failed" in his first important military undertaking. The teacher might read the last paragraph of this selection to the class, emphasizing the lines "In their [the soldiers'] splendid enthusiasm for him was the seed of American unity, which would flower about him a score of years later when all the colonies would accept his leadership. Out of defeat comes the secret of victory." Lead the class to see that Washington's acceptance as leader of an army of men from all the colonies, as shown in "A Coat for a Soldier," demonstrates the truth of this idea. Ask, "What other famous Americans were living at the same time?" Pupils will probably mention many Revolutionary patriots. Be certain Paul Revere, Thomas Paine, Samuel Adams, Patrick Henry, Benjamin Franklin, and Thomas Jefferson are included in the discussion. Center discussion on what each of these men contributed to the American cause.

As further background for the Revolutionary period, ask how the flag designed for the Army of the United Colonies looked (pages 70-71) and why the soldier who described the flag was not well-pleased with it.

Then ask, "What would lead you to think that the American colonists of 1775 wanted the same things as the Pilgrims of 1620?" Develop the idea that the "four cornerstones" of the Pilgrims (page 60) were still the dream of the people and a reason for independence from Britain.

EXTENDING SKILLS AND ABILITIES

Inferring word meaning from context . . . To give practice in inferring word meaning from specific or general context, read aloud the following quotation from "A Coat for a Soldier": " 'The Stars and Stripes would be such a fair flag.' " Ask, "What kind of flag would a 'fair flag' be?" When pupils have inferred the meaning of *fair*, read the next quotation: "Mother had evidently gone into the best room to await their visitor in state. . . ." Ask, "How would Mother wait for a visitor 'in state'?" Continue in this manner with the following quotations, asking questions to draw out the meaning of the boldface words.

" ' . . . I have not read you that letter from one of our own lads only to *harrow* up your feelings.' "

" 'The last *post* brought also this paper I hold in my hand.' "

"It was a *stout* cloth. . . ."

"Deborah made her way to them through the *press*. . . ."

"Emotions *warred* in Mother's face."

"Grandmother *swept* him a curtsy."

Phonetic analysis (vowel principles) . . . Since it is important that boys and girls have at their command simple, workable methods of independent word analysis, it is recommended that the teacher use the exercises in the first two units of this **GUIDEBOOK** as a review of methods of word attack in which training has been given at earlier levels. By eighth-grade level pupils have been taught to use the following general principles as aids in determining vowel sounds in words:

Position: If there is only one vowel letter in a word or syllable, that letter usually has its short sound unless it comes at the end of the word or syllable; e.g., *mask, prism, rob in, be, li on*.

Silent vowels: If there are two vowel letters in a word or syllable, one of which is final *e*, usually the first vowel has its long sound and the final *e* is silent; e.g., *cake, line, in vade*.

If there are two vowel letters together in a word or syllable, usually the first has its long sound and the second is silent; e.g., *soak, gain, or deal*.

Consonant controllers: If the only vowel letter in a word or syllable is followed by *r*, the sound of the vowel is usually controlled by the *r*; e.g., *barn*, *swerve*, for *tress*.

If the only vowel letter in a word or syllable is *a* followed by *l* or *w*, the *a* usually has neither the long nor the short sound; e.g., *jaw*, *fat ter*.

To check pupils' ability to apply these principles in attacking one-syllable words, write the following on the blackboard: *bane*, *loam*, *cash*, *brig*, *blithe*, *cog*, *muck*, *Karl*, *tile*, *leash*, *pall*, *germ*, *flaw*, *jail*. Ask boys and girls to look at *bane* and tell whether they think the vowel sound is long, short, or neither long nor short and give the reasons why. Then have the word pronounced. If pupils have difficulty, discuss the principle which applies. Continue with the other words.

Think-and-Do Book . . . Use pages 14, 15, and 16.

EXTENDING INTERESTS

Satisfying personal interests . . . Encourage pupils to add to their collection of photographs and sketches of common objects mentioned in "News from the New World" by finding pictures of household furnishings in use in Massachusetts one hundred and fifty years later. Other class members may enjoy finding photographs of silver made by Paul Revere. If anyone is interested in the three flags from which our present-day banner evolved, recommend *Flags of All Nations*, by C. H. Smith and G. R. Taylor, which gives pictures of and information about the flags used by the different colonies during the Revolutionary War.

Enjoying poetry . . . The teacher may read to the class parts of "Valley Forge," by Thomas Buchanan Read. "Betsey's Battle Flag," by Minna Irving, and the first stanza of Joseph Rodman Drake's "The American Flag" have interest and value in connection with the discussion of the flag. These poems may all be found in *Poems of American History*.

Extension reading . . . Recommend these books: *Johnny Tremain*, by Esther Forbes; *Sword of the Wilderness*, by Elizabeth Coatsworth; *Rebel Siege*, by Jim Kjelgaard; *Rising Thunder*, by Hildegard Hawthorne; *Rifles for Washington*, by Elsie Singmaster; and *Silver for General Washington*, by Enid Meadowcroft.

The Oregon Trail

PREPARING TO PRESENT THE POEM

Just as the poem "Columbus," by Joaquin Miller, typifies the spirit of all great pathfinders, so "The Oregon Trail," by Arthur Guiterman, represents all the men and women through the ages who have dreamed dreams, endured hardships, and faced dangers to find a better world for themselves and for their children. "The Oregon Trail" is a story of anonymous heroes, of men who with great courage and stolid determination opened the West. Arthur Guiterman's poem has caught their spirit.

The first stanza of the poem carries the tempo of a heavy, slogging march. The words fairly crawl along to suggest fatigue, effort, and the do-or-die spirit of the pioneers; the sound of the words with their rolling vowels strengthens this idea. The slow marching rhythm of the first stanza is repeated in the fourth, seventh, and tenth stanzas with the refrain "Two hundred wagons. . . ." The first stanza should be read slowly with the march rhythm strongly accented:

Two hundred wagons, rolling out to Oregon,
Breaking through the gopher holes, lurching wide and free,
Crawling up the mountain pass, jolting, grumbling, rumbling on,
Two hundred wagons, rolling to the sea.

The teacher should try walking to this rhythm with sagging shoulders and plodding feet, reading the lines in rich, rolling tones. Next walk to all the refrain lines from the poem, noticing that while the rhythm remains the same throughout, the mood and tone of voice used in the last refrain should suggest the realization of a great dream.

The second and third stanzas are to be read as straight narrative. The second stanza describes the gathering of the wagon train, while the third begins the description of the movement westward. The fourth stanza

picks up the refrain, and the fifth again takes up the narrative. The sixth stanza is transitional, pointing out that mankind's striving toward greater opportunities has gone on throughout the ages. The Oregon pioneers are marching in step with their ancestors driven by the age-old urge to move and to expand. After the refrain of the seventh stanza, the eighth stanza introduces the idea of conflict. The trapper and the Indian resist the oncoming wagon trains which will turn the free land of the West into farming communities, but, as always, the old must ultimately give way before the strength of the new.

The ninth stanza is written in the spirit of triumph. The British acknowledge the loss of Oregon to the hardy American settlers who plan a new life in a new land for themselves, their children, and all the generations to come. The first two lines of this stanza are again to be read as straight narrative, but with the third line, a note of victory enters, lifting at "They will take" in the fifth line to a triumphant singing. This mood is sustained throughout the short lines ending the stanza.

The last stanza is again the chorus but with a different tone. Although some of the same words that expressed strain and weariness in the first stanza remain, the feeling is that of triumph tempered by great effort and pain endured. The word "Star" in the last line suggests the opportunities that continually appear to courageous men and women. The reading of the last stanza in a full, clear, unhurried voice should catch this note of mingled triumph and aspiration.

Before presenting the poem to the class the teacher should read it aloud, time and again, until satisfied that she feels and can convey to listeners each change in rhythm and each variation in mood. Only a teacher thoroughly familiar with the poem and confident of reading it well can convey to pupils its force, inspiration, and emotional appeal.

PRESENTING AND INTERPRETING THE POEM

Have pupils read the background note on page 479 and lead them to recall briefly the exploits of the famous pioneers mentioned. They will probably enjoy hearing again "Daniel Boone," by Arthur Guiterman (pages 82-84 of *PATHS AND PATHFINDERS*). Call to their attention that while "Daniel Boone" sketches the life of a famous frontiersman, "The Oregon Trail," written by the same author, tells of unknown heroes, everyday men and women, who struggled to open up the West.

Have pupils turn to the poem and explain that just as the rhythm and words in "Paul Revere's Ride," by Longfellow (pages 77-81 of *PATHS AND PATHFINDERS*), make the reader hear the galloping feet of horses, so the words and the rhythm of this poem suggest the plodding of ox-drawn wagons and tired people. Read the first stanza to the class, asking boys and girls to listen to the sound of the covered wagons lurching along. Suggest that pupils look at the rest of the poem and find other stanzas that are written in the same pattern as the first one. After the class has noted the similarity in pattern between the first, fourth, seventh, and tenth stanzas, tell pupils that poetry, like music, often has a chorus or a refrain which underscores the mood of the poem. The teacher should next read aloud the refrain lines and have pupils try walking in the heavy, slogging march which the rhythm suggests. When they have the feel of the rhythm, the actual reading of the poem should begin.

Before the boys and girls read the second and third stanzas, clear up any expressions that may cause difficulty: e.g., "A fleet of ten-score prairie ships," "Missouri's flow," "canvas-hooded files," "women hold the guiding-lines." Explain that these stanzas describe the gathering of the wagons from all parts of the country at Independence, Missouri, the take-off place for the Oregon and Santa Fé trails, and the beginning of the real march west. After pupils have read the second and third stanzas, remind them that the fourth stanza again picks up the refrain and have that stanza read silently.

Explain that the fifth stanza describes the march westward and some of the difficulties the pioneers encountered. Since there are several unfamiliar names mentioned in these lines, the teacher should read the stanza aloud to the class. Then ask, "What were some of the difficulties that these people encountered as they went farther west? After the pioneers crossed the Great Divide, where do you think they were?"

To clarify the idea of stanza six for pupils, the teacher might say, "Here the poet pauses for a moment to compare the story of the Oregon Trail with man's timeless push onward toward a better life and greater opportunities. The Oregon pioneers were a part of this movement that has gone on throughout the ages."

The refrain of stanza seven again follows the Oregon Trail. Before the pupils read this stanza, point out that line two suggests that the Continental Divide and the worst of the journey are behind the pioneers.

Before boys and girls read the last three stanzas, give as guidance preceding each stanza the ideas presented for the teacher's preparation in the first section of this lesson plan.

When pupils have read the poem in the manner suggested, remind them that behind these pioneers were other generations who pushed on toward new horizons. In discussion bring out the idea that when men struggle along any path that leads them on toward new places or new achievements, they are "following a Star." Guiterman sees the Oregon Trail as such a path. Ask, "Can you think of any other heroes of the past who 'followed a Star'? Do you think there are people today who feel that they have a star to follow? For what things are these people working?" Develop the idea that in science, aviation, human relations, etc., opportunities still beckon.

ORAL INTERPRETATION

The teacher should read the first stanza of the poem to the class again, walking in time with the slow, slogging rhythm. After the teacher's demonstration, pupils should try reading in unison, walking to its slogging beat. When they have mastered the rhythm, let them continue the march, while the teacher reads aloud the first and fourth lines of the refrain stanzas, omitting all the other lines.

Pupils may enjoy reading the poem through once, without a break, to get the sweep and rhythm of the whole. Then a different pupil might read each narrative stanza; the entire class, stanza one; and the teacher, stanzas four, seven, nine, and ten.

Point out that the "Volga Boat Song" has a pulling rhythm. Ask what other poems or songs pupils can think of that have work rhythms: "Old Man River," "Storm Along, John" (pages 215-216 of *PATHS AND PATHFINDERS*), and others.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 17, which presents "Western Wagons," by Rosemary and Stephen Vincent Benét, and sets up an interesting comparison of this poem and Guiterman's "Oregon Trail."

Enjoying poetry . . . The teacher may read parts of "Whitman's Ride for Oregon," by Hezekiah Butterworth, in *Poems of American History*.

"Pioneers! O Pioneers!" by Walt Whitman, in *My Poetry Book*, expands the idea voiced in "The Oregon Trail" of the onward march of men through the centuries. The first ten stanzas of this poem are the most factual and easiest to understand.

Extension reading . . . A number of very fine stories have been written about the Oregon and Santa Fé trails. The teacher might recommend: *Wheels Toward the West*, by Hildegard Hawthorne; *Children of the Covered Wagon*, by Mary Jane Carr; and *Rolling Wheels*, by Katharine Grey.

◀ PAGES 85-99 ▶

Flying Cloud

PREPARING FOR READING

Suggest that pupils read the background note on pages 479-480; encourage any comments they may wish to make about the Gold Rush days. Lead pupils to suggest some of the various means of transportation that people used at that time in getting to California. Then ask, "What do you think the title 'Flying Cloud' suggests?" To verify their opinions, suggest that boys and girls turn to the picture on page 96 and tell what kind of ship the *Flying Cloud* was (clipper ship).

Then ask pupils to read the story "Flying Cloud" to find out what part the ship played in this story of the Gold Rush days. (If any class members are using copies of the first printing of *WONDERS AND WORKERS*, tell them before they begin reading that the date July 23 on page 97 should read July 31.)

EXTENDING INTERPRETATION

Initiate discussion on the exciting aspects of the story. Pupils should be encouraged to talk about the race and whether they themselves would enjoy a long trip on a sailing vessel. Then ask the following questions: "What was Jabe's biggest problem? What part did the *Flying Cloud* play in solving Jabe's problem? What significance did the success of the

venture have for the people on the West Coast during the Gold Rush days and afterward?" (It was a step toward shortening the time needed to get from the east to the west coast.)

Tell the class that the *Flying Cloud* was one of the most beautiful as well as the swiftest clipper ship ever built. Ask, "What contribution did the men who built and sailed this ship make to its success?" Then encourage pupils to find and read aloud sentences from the story which show the dauntlessness of the sailors in their race against time. Elicit from boys and girls the characteristics that the Oregon pioneers and the sailors of the *Flying Cloud* had in common.

Pupils may also be interested in hearing that clipper ships were once sailed by the American merchant marine, which began in the early colonial days, fought the British in the Revolutionary War and the War of 1812, and in the present century carried supplies to our armies and allies overseas in two world wars.

Encourage members of the class to discuss the kind of man Captain Creesy was, citing characteristics depicted in the story. Then repeat the captain's remark about Jabe, "It'll keep his mind off his troubles to be busy" and ask, "Was this true in Jabe's case? What incidents from the story can you mention to prove your point?" Invite boys and girls to discuss cases when being busy with a hobby or sports kept them from thinking of their troubles.

Highlight the fact that the author has made an adventure story out of a historic episode and have the parts of the story that might be true pointed out. (Only the parts about Jabe and his family are fictional.) Suggest that several pupils investigate and report later on the incidents in this story that actually occurred.

EXTENDING SKILLS AND ABILITIES

Visualizing . . . To develop skill in visualizing on the basis of ideas gained from reading, have pupils note the description of the *Flying Cloud* on page 89. Suggest that they try to picture in their minds how the ship actually looked. Then ask, "How long do you think 225 feet is? How many classrooms placed end to end would it take to equal that length? How far would the *Flying Cloud* stretch along a city street? Is an eighty-eight-foot mainmast taller than the chimney of the school building?" Ask the class to compare the pictures of the *Mayflower* on page 54 and

the *Flying Cloud* on page 96, noting details of bow and sails. Then give them the following specifications:

	Length	Breadth	Height	Tonnage
Mayflower	111 feet	22 feet	?	180 tons
Flying Cloud	225 feet	40 feet, 8 in.	88 feet	1,783 tons
Queen Mary	1018 feet	120 feet	234 feet	80,773 tons

Encourage pupils to use objects in their own experience to aid in visualizing and comparing the size of these ships. (Authorities disagree somewhat on the exact length and breadth of the *Mayflower*.)

Perceiving time relationships . . . In reading historical literature it is important that pupils develop a sense of the time relationship of one event to another. To give practice in observing these relationships, have a chart made, listing the historical period and the selection read in the unit which describes life during that time. Then boys and girls should suggest the names of historically important figures connected with the period and the contributions that each made. The chart could be set up as suggested below. (Additional background for these historical periods was presented in preceding books of the Basic Reading Program, and the stories which pupils may recall are given in footnotes.)

Colonial Period¹
("News from the New World")

Men	Contributions
John Smith	Founded Virginia colony
Roger Williams	Founded Rhode Island colony on principles of tolerance
William Penn	Founded Pennsylvania colony for Quakers and all religious groups

Revolutionary War Period²
("A Coat for a Soldier")

Paul Revere	Warned people that British were coming
George Washington	Led American army in war; first president of U.S.
Thomas Jefferson	Wrote Declaration of Independence; third president of U.S.

¹"Ben Franklin, Printer's Boy," pp. 336-346, in *DAYS AND DEEDS*, Book Five.

²"News for the Gazette," pp. 52-60, "Thomas Jefferson," pp. 342-354, "Lafayette Meets His Hero," pp. 355-362, in *PEOPLE AND PROGRESS*, Book Six; "Out of Defeat," pp. 62-76, "Paul Revere's Ride," pp. 77-81, "Nathan Hale," pp. 332-337, in *PATHS AND PATHFINDERS*, Book Seven.

Period of Westward Expansion and the
Development of Communication, Transportation¹
("The Oregon Trail")
("Flying Cloud")

Men	Contributions
James Watt	Invented steam engine
Lewis and Clark	Made exploring expedition to Louisiana and Oregon territories
Robert Fulton	Invented steamboat
Daniel Boone	Led in the settling of Kentucky and Missouri
The Whitmans	Led in the settling of Oregon
Alexander Graham Bell	Invented telephone

Think-and-Do Book . . . Use pages 18, 19, and 20.

EXTENDING INTERESTS

Creative writing . . . Remind class members that although we are told specifically that the *Flying Cloud* broke the sailing record, Jabe's final adventures in bringing aid to his uncles are not narrated. Suggest that pupils write or tell what they think might have happened after Jabe left the ship.

Satisfying personal interests . . . *Clipper Ships Done in Cork Models*, by Peter Adams, contains both a history of the development of clipper ships and directions on how to make simple models. The chapter on the *Flying Cloud* includes material about Donald McKay. *Clipper Ship Men*, by Alexander Laing, offers the more mature reader a fine account of Donald McKay and other shipbuilders.

Extension reading . . . There are many fine adventure stories of the sea written for boys and girls: *Two Oceans to Canton*, by Agnes Danforth Hewes; *Knight of the Sea: The Story of Stephen Decatur*, by Corinne Lowe; *I Have Just Begun to Fight*, by Edward Ellsberg; *Donald McKay, Designer of Clipper Ships*, by Clara I. Judson; *Go and Find Wind*, by Erick Berry, and *Black Buccaneer*, by Stephen Meader.

"Jonathan's Buffalo," pp. 52-60, "Pike's Peak or Bust," pp. 80-86, "The Mail Must Go Through," pp. 87-96, in *DAYS AND DEEDS*, Book Five; "Yankee Clipper Ship," pp. 61-69, "Newfangled Notions," pp. 90-100, in *PEOPLE AND PROGRESS*, Book Six. "Saviors of Oregon," pp. 96-103, in *PATHS AND PATHFINDERS*, Book Seven.

I Hear America Singing

PREPARING TO PRESENT THE POEM

This poem by Walt Whitman is strong, vital, and full of the spirit of America. As schoolteacher, carpenter, newspaperman, and volunteer in the Civil War, Whitman came to know intimately people of all kinds, and it is of these many types of people that he writes.

To Whitman the idea in the poem was all important. He constantly wrote and rewrote his lines to find the perfect word to convey the elusive idea. Much of his poetry is difficult to understand, but in the best of it he catches the spirit of a democratic America as few other poets have been able to do. The teacher should read "I Hear America Singing" to herself several times—at a leisurely pace—so that the individual songs of each person can be "heard" by the reader as they were by Whitman.

PRESENTING AND INTERPRETING THE POEM

The pupil who reads "I Hear America Singing" may be puzzled by the fact that the poem does not rhyme and does not have a measured beat. Therefore, in introducing the poem, the teacher should tell the class a little about Whitman himself—that he wanted his poetry to speak to the ordinary people of America about things of interest to them. Since Whitman felt that the American way of life differed from older ways, he believed it was possible to write of it in a manner different from that which poets of the past have used in writing of their civilizations. Mention that in this particular poem, Whitman is writing about the various songs of America. These songs are not only tunes that are sung, but they are also rhythms and sounds of work being done.

After pupils have read the poem, say, "There is one line which is the key to the idea of the whole poem." Then read aloud the line, "Each singing what belongs to him or her and to none else." Ask, "What should this line mean to each of us? What kind of song would the boatman be singing? [sea chanteys] The mother? [lullabies] What songs do you think the cowboys would sing? What other kinds of songs can you

think of?" "I've Been Working on the Railroad," spirituals, war songs, love songs, and school songs might be mentioned. Then ask, "How does each of these songs express what Whitman meant when he said 'Each singing what belongs to him or her and to none else?'"

ORAL INTERPRETATION

The teacher might read the poem aloud to the members of the class in a leisurely tone, bringing out the songs of the men and women who have built America.

EXTENDING INTERESTS

Creative writing . . . Suggest to boys and girls that there may be something in each of their lives which, because they think of it in a personal way, belongs to them and to no one else. Point out that writing of things as we ourselves see them is the important thing in creative writing. With this idea in mind pupils may enjoy writing stories, articles, or poems about familiar subjects from a purely personal point of view.

Extension reading . . . Pupils will find a brief biography of Whitman on pages 93-108 of *Lays of the New Land*, by Charlie May Simon. They may also enjoy a biography of Stephen Foster, *He Heard America Sing*, by Claire Lee Purdy, which takes its title from the poem by Whitman.

◀ PAGES 101-108 ▶

Engine 999

PREPARING FOR READING

In the preceding story, the reader felt the excitement as well as the significance of transportation in building the nation. "Engine 999" will give a dramatic glimpse of another phase of transportation. From their recollections of movies and stories, class members will probably be able to offer many facts on how the railroads opened up the West and aided in the development of America.

Have pupils turn to page 482 in *Wonders and Workers* and ask someone to read aloud the background note for "Engine 999." Encourage pupils to tell when they think Engine 999 made its record-breaking run and to speculate on what speed it must have reached. As individuals suggest the probable speed, record the suggestions on the blackboard. Next call attention to the picture on page 101 and say, "Does this picture give you a hint as to what the correct answer may be?" Suggest that the first two paragraphs on the page be read silently to verify opinions. Then have pupils continue reading the rest of the selection to see if they would have liked to ride in the cab of Engine 999 when the record was set.

EXTENDING INTERPRETATION

After the silent reading, encourage pupils to tell what they learned about Charlie Hogan from reading the selection, mentioning details about his early training, experiences in the West, work with the New York Central, and personal characteristics. Ask, "What are the responsibilities of a railway engineer? What kind of engineer do you think Rodney, of 'Rodney's Rocket,' would have been?" Have someone read the third paragraph on page 102 and ask various members of the class if they think Charlie Hogan himself had the characteristics which he described as essential to a good engineer. Suggest that pupils skim the selection for passages that will verify their opinions. Lead pupils to see that Mr. Hogan's uncommon skill as an engineer earned him the confidence that Mr. Buchanan showed in him when he chose him to make the test run. Mention that when Charlie Hogan retired, he was manager of the department of shop labor and ask what qualities mentioned in this selection probably helped him win this position.

To promote awareness of the countless people whose work is necessary for the use and maintenance of our modern wonders, say, "The names of three men [page 105] are linked with the creation of Engine 999. Do you think they were the only ones whose work was needed to produce this marvelous engine and make that record run? Name some of the other workers." Encourage comment on the painstaking planning that went into Engine 999 and the thorough care and check-ups it received. Pupils should note, also, the care that went into making the engine, hand-polishing its frame, and the pleasure the men gained from its beautiful appearance. Then invite discussion on how pupils think the men must have

felt when the spring hanger broke during the test run. Remind pupils that aviators frequently name their airplanes and endow each ship with an individual personality and ask such questions as: "What would lead you to think that the men who built Engine 999 felt much the same way about it? When have you ever felt that way about something you made or had for a long time?"

At this point the pupils might enjoy a group reading of the description of the run from Syracuse to Buffalo (pages 107-108). Four boys might be chosen, one to read the narrative parts, and three others to read the words spoken by Mr. Buchanan, Charlie Hogan, and Ike, the fireman. After the reading ask, "Why do you think neither man spoke at the time the train was going the fastest?" Lead pupils to see that the men must have been so completely absorbed in the engine's remarkable performance that they felt no need for words. Conclude by saying, "How did you feel when you took your first train or airplane ride?"

Call attention to the demand for speed as it figured in "Flying Cloud" and again in "Engine 999." Pupils should note that the twentieth century is characterized by a decided accent on speed. A brief discussion might be centered on the dangers which accompany this speed, the necessity for handling speed with caution, and some of the latest achievements in speed, together with new safety devices and safety measures that have been developed.

EXTENDING SKILLS AND ABILITIES

Reading a timetable . . . To aid pupils in learning how to read a timetable, the teacher might get several timetables and suggest that boys and girls make a chart of trips by train from their own home to such places as Chicago, New York City, New Orleans, and Los Angeles, including time of departure, time of arrival, and connections made.

Structural and phonetic analysis (*principles of syllabication*) . . . By eighth-grade level, pupils should be able to apply the following general principles for the syllabication of words:

If two consonants come between two vowels in a word, the first syllable usually ends with the first of the two consonants; e.g., man ner, shan ty. If there is one consonant between two vowels, the first syllable usually ends just before the consonant; e.g., ti dy, re gent.

If a word ends in *le* and a consonant precedes the *l*, this consonant usually begins the last syllable; e.g., *sam ple*, *tan gle*.

Pupils should also be able to use the following clues that aid in determining accent:

Prefixes, suffixes, and inflectional endings are usually unaccented, e.g., *dis cour age*, *re turn*, *care ful*, *ship ment*, *hunt ed*, *light en*.

When a word ends in *le*, the final syllable is usually unaccented, e.g., *ta ble*, *bu gle*.

The following exercise will serve as a check for the teacher on (1) pupils' understanding of the principles of syllabication; (2) their ability to apply these principles; (3) their ability to apply the general principles for determining vowel sounds; and (4) their ability to use the clues that aid in determining accent. If pupils evidence weaknesses, guidance should be given from time to time during special periods in which the teacher may work with individual pupils or groups.

Write on the blackboard the known words *esteem*, *conviction*, *scudded*, *gamble*, *defile*, *implant*, *varnish*, *meddle*. Point to the word *esteem*, and ask pupils to tell where they think the first syllable ends and why. Have the word pronounced and the accented syllable identified. Then discuss the general principle that aids in determining the vowel sound in the accented syllable of this word. (See page 76 of this Grammar.) Repeat this procedure with each of the other words. As the words *conviction*, *scudded*, *gamble*, *implant*, *meddle* are discussed, call attention to the clues that aid in determining accent and lead children to make the generalization that the vowel principles apply to accented syllables.

Next write the following sentences, underlining the boldface words. Point to the word *contended* in the first sentence and ask pupils to tell where they think the first syllable ends and why. Suggest that they think of the sound of each syllable and try to pronounce the word. Then have the entire sentence read aloud. Continue with the other sentences.

1. The captain *contended* that the voyage could be made in record time.
2. The wound became *infected*.
3. The man could not tell who his *assailant* was.
4. The old woman wound the thread on the *spindle*.
5. She liked her new watch because it was *oval* instead of round.

Think-and-Do Book . . . Use pages 21 and 22.

EXTENDING INTERESTS

Locating information . . . Suggest that pupils secure information about the railroads in their own communities—when they were started, what the first trains looked like, etc. Pictures might also be brought in and arranged as a bulletin-board display.

Encourage interest in securing information on the leading railroads in the United States and their history. Pictures of famous trains, tunnels, and railroad bridges might be collected and a scrapbook started. Many railroad companies publish interesting pamphlets which may be obtained on request. Suggest forming a committee to write for them and then arrange space for display on the classroom reading table.

Extension reading . . . The teacher might recommend these books: *Long Trains Roll*, by Stephen Meader; *Giants of the Rails*, by S. Kip Farrington, Jr.; *Whistle Round the Bend*, by Erick Berry; and *Railway Engineer*, by Clara I. Judson.

Boys and girls may also read these poems: "The Locomotive," by Emily Dickinson; "Travel," by Edna St. Vincent Millay, and "Travel," by Robert Louis Stevenson, all in *My Poetry Book*.

◀ PAGE 109 ▶

The Makers of Speed

PREPARING TO PRESENT THE POEM

This is a poem in which the teacher may well plan to give guidance that will aid pupils in comprehending the author's ideas. The following interpretation may be of help in preparing to present "The Makers of Speed" to an eighth-grade group.

*The workmen speak in a sort of chant, or beseeching prayer:
We are the ones who make the tools of modern industry;
We are the ones who bring a quick, humming tempo to life:
We build speed into every sort of tool,
Those used on the land, on the sea, in the air.
We are the producers of speed-producers.
We have brought you the Age of Speed,*

With its quick pace, its exciting, ceaseless action
 But in doing so, we have become mere robots
 Turning out every sort of tool automatically;
 And we have cut down the trees
 And laid bare the soft, peaceful face of nature.
 We have destroyed all quiet and all restfulness
 So that no more will you know the slow pace of other days.
 Do you hate us for our part in the building
 Of a faster, speedier, more exciting world?
 We bow our heads:
 Lay the blame on us.

The poem is as distinctive in its choice of words as it is challenging in its thought. The teacher should practice reading it aloud until the voice conveys the power as well as the meaning and rhythm of the poet's words. The first and seventh lines, spoken by a narrator, are quiet in rhythm and tone as contrasted to the rasping harshness of the lines which describe the building of the machinery of speed. Throughout the poem, and especially in the climactic last two lines of the poem, the workmen speak of themselves as the "makers of speed" with both pride and self-condemnation.

PRESENTING AND INTERPRETING THE POEM

Have pupils note the title of the poem. Then ask in what selections in this unit speed plays an important part. Point out that this poem is a song of the men who made possible the clipper ships, the locomotive, and all the machines upon which we depend in our civilization.

Explain that a litany is a beseeching prayer, often chanted aloud, and that the poet calls it a *silent* litany because the workmen are thinking these things day after day as they work—the author puts the workmen's ideas into words. The poet speaks to us in the first and seventh lines, but in all the other lines he has the workmen express their thoughts.

Have pupils read the entire poem. Then ask, "What are some of the things that these workmen do? What group of workmen speak in lines 3-6? What are they saying?" Continue the same type of questions with lines 9-10, 12-16, and 17-20. Then read aloud the lines in the second stanza from "Us, who know how" to the end of the poem and ask what the workers tell us in these lines. The teacher should clarify the fact that in these lines all the workmen speak. They express their pride in the

things that they have created; at the same time they reveal fear of the force of the speed they have turned loose. Ask pupils what ideas they think the poet tries to convey when he has the workmen say, "Us the high designers and the automatic feeders, Us, with heads, Us, with hands." Then say, "Why do you think the workers say, 'Lay the blame on us'?" Next ask members of the class if they can think of any specific group of workmen who were especially proud of the work that they were doing and who at the same time might have spoken a silent litany as they worked. (Pupils will no doubt mention the scientists who worked on the atomic bomb.)

The reactions to the ideas of this poem will be many and varied; and if members of the class wish to express their personal reactions, opportunity should be given them to do so. This, however, should be the last step in interpretation, not the first.

ORAL INTERPRETATION

The poem is excellent for reading aloud. Explain to pupils that Sandburg has written the poem in the words and rhythms of the twentieth century. Tell them that the lines listing the kinds of machinery are filled with harsh-sounding words and should be read in a harsh tone.

For effective reading aloud, the poem may be read by several boys and girls, following the plan outlined below. The words *we* and *us* should be pointed up!

Narrator: *The silent litany of the workmen goes on—*

Class: *Speed, speed, ~~we~~ are the makers of speed.*

1st Voice: *We make the flying, crying motors,*

2nd Voice: *Clutches, brakes, and axles,*

3rd Voice: *Gears, ignitions, accelerators,*

4th Voice: *Spokes and springs and shock absorbers.*

*rising tone
and increas-
ing tempo*

Narrator: *The silent litany of the workmen goes on—*

Class: *Speed, speed, ~~we~~ are the makers of speed;*

1st Voice: *Axles, clutches, levers, shovels;*

2nd Voice: *We make the signals and lay the way—*

Class: *Speed, speed.*

1st Voice: *The trees come down to our tools.*

2nd Voice: *We carve the wood to the wanted shape.*

3rd Voice: *The whining propeller's song in the sky,*

4th Voice: *The steady drone of the overland truck*

" " : *Comes from our hands;—*
Class: *us, the makers of speed.*

Class: Speed; the turbines crossing the Big Pond,
 1st Voice: Every nut and bolt, every bar and screw,
 2nd Voice: Every fitted and whirling shaft,
 3rd Voice: They came from us, the makers,
 Class: Us, who know how.
 Us, the high designers and automatic feeders,
 Us, with heads,
 Us, with hands,
 Us, on the long haul, the short flight;
 We are the makers; lay the blame on us—
 The makers of speed.

EXTENDING INTERESTS

Enjoying poetry . . . Pupils will enjoy reading for themselves "Prayers of Steel," by Carl Sandburg, in *My Poetry Book*. This poem expresses the poet's faith in modern civilization and is an excellent choice after pupils have read "Makers of Speed." Pages 18-19 in *Lays of the New Land*, by Charlie May Simon, tell about Sandburg and may also be read with interest.

◀ PAGES 110-118 ▶

Road to Alaska

PREPARING FOR READING

Have the class read the title of the selection and ask if anyone knows the name by which this road is popularly known. If pupils do not know, ask them to look for this information as they read Douglas Cae's account of its building. Provide opportunity to read the background notes on page 483. Then tell the class that a group of United States Army engineers used the following slogan during the building of the Highway: "The difficult we do immediately. The impossible takes a little longer." Ask pupils to keep the slogan in mind as they read the selection and decide whether or not they think it is a well-chosen slogan for these Army engineers.

EXTENDING INTERPRETATION

Begin discussion by asking pupils to name some of the "impossible" things that the Army actually accomplished. Then say, "The builders of the Alcan Highway had many obstacles to overcome. Among those that caused the most trouble were the three *m*'s. One of these *m*'s was *mountains*. What do you think the others were?" (*muskeg* and *mosquitoes*) If no one suggests the latter, say, "Douglas Coe does not mention the third *m* in his article, but the artist indicates what it was. Look at the illustrations and see if you can find it." (The picture on page 114 shows the workers wearing nets and gloves as protection against the mosquitoes.) Elicit other difficulties faced by the workers and encourage pupils to tell which difficulty they would have found most troublesome. If a complete copy of *Road to Alaska*, by Douglas Coe, is available, the teacher might read Chapter V at this point.

To promote recognition of the need for planning and working together, direct attention to the sentence on page 111, "They were a cog in the great wheel that had already started to turn" and have class members explain it. Use the map on page 112 as pupils mention the various points from which construction began. If a wall map is available, ask someone to trace the route of the Alcan Highway so that pupils will see the relationship of the completed highway to the United States, Canada, and Alaska.

Lead pupils to explain what is meant by "challenging the wilderness to battle" and "the North had never been beaten." Ask pupils what they think gave the Alcan builders their greatest aid (machinery). Encourage discussion of other accomplishments which have been made possible by mechanical inventions. If possible, show the class the illustrations that accompany "Alaskan Highway an Engineering Epic," in *The National Geographic Magazine* for February 1943. Tell the class that the building of the Alcan Highway has sometimes been compared to the construction of the Panama Canal and ask, "In what ways were these projects alike? In what ways were they different?" Guide discussion so that pupils understand that mosquitoes, swamps, and mountains were enemies of both projects, and that lack of time added greatly to the troubles of constructing the Road.

Call attention to the line on page 118 ("Of course, nobody claimed that the Road was a boulevard.") and have the sentence explained. Ask,

"What have you read or heard recently about the Alcan Highway?" Have the members of the class speculate on what they think the future of the Road will be and what part the Road may play in the development of Western Canada and Alaska.

Conclude the discussion with a comparison of the author's style in "Road to Alaska" with that of preceding selections in the unit. Explain that this is an informational article and encourage consideration of whether the author could have made it into an adventure story like "Flying Cloud." Then ask how this might have been done.

EXTENDING SKILLS AND ABILITIES

Justifying statements . . . To extend ability to justify statements on the basis of ideas gained from reading, write the following sentences on the blackboard and ask pupils to find and read aloud sentences from the story to justify each of them. The numbers in parentheses indicate for the teacher pages where sentences to use in justifying the statements may be found.

The muskeg bogs were not of uniform depth, nor were they bottomless.
(pages 113, 114)

It was impossible to maintain a uniform speed in constructing the road.
(page 115)

If the climate of western Canada and southern Alaska were to turn mild, the muskeg bogs would become soil. (page 113)

The work of the men in the Quartermaster Units was as important as that of the engineers and construction men. (page 111)

In winter the rivers were often wider than they were in the summer.
(pages 115-116)

Structural and phonetic analysis . . . To strengthen the ability to determine the structure of a word and to apply phonetic analysis to root words or syllables within a word, write on the blackboard the following words: *quavered, torpedo, legally, redefined, lushness*. Call attention to the word *quavered* and ask pupils how they would attack this word. Elicit that in any unknown word, one must first look at the entire word to determine whether a prefix, suffix, or ending has been added and then identify the root word. If the root word is a two or more syllable word, divide it into syllables and decide which syllable should be accented. Have the word *quavered* pronounced. Continue with the other words

in the list. If the boys and girls encounter any difficulty, recall briefly the principles of syllabication and the principles that aid in determining vowel sounds. (For a list of these principles, see pages 89-90 of this *GUIDEBOOK*.)

Next write the following sentences on the blackboard, underlining the boldface words. Have members of the class read the first sentence silently. Point to the word *sloshing*, have it pronounced, and then lead pupils to tell what type of analysis they used in deriving its pronunciation. Have the entire sentence read aloud. Continue in the same manner with the other sentences.

1. Our rubber boots made a *sloshing* sound as we walked through the muddy swamps.
2. A *raven* is a large black bird somewhat like a crow.
3. He made the plea *fervently*.
4. It was not safe to *unleash* the dog as long as the stranger was there.
5. His *accession* to the throne came very suddenly.

Think-and-Do Book . . . Use pages 23-24 and 25.

EXTENDING INTERESTS

Creative writing . . . Call attention again to the author's factual treatment of the building of the Alcan Highway; then have pupils recall "Flying Cloud" in which Jabe was an imaginary character placed in a background of real events. Encourage pupils to write a similar adventure story, projecting themselves or a fictitious character against the background of events provided in the story "Road to Alaska." The teacher might read the best stories to the boys and girls or place them on the classroom reading table.

Using reference materials . . . After the reading of "Road to Alaska," pupils may be encouraged to locate recent information about Alaska and the Alcan Highway through the use of the *Readers' Guide to Periodical Literature*. If difficulties are encountered in using the *Readers' Guide*, present the lesson on pages 51-52 of the *GUIDEBOOK* for *PATHS AND PATHFINDERS*. As pupils consult the *Readers' Guide* for recent magazine articles about the Alaska Highway, have them look up any cross references indicated and let different members of the class locate the articles, read them, and then report back to the group on the information they found.

Extension reading . . . Pupils who would like to know more about modern Alaska might be referred to the following books: *Guide to Alaska, Last American Frontier*, by Merle Colby; *Alaska and the Canadian Northwest*, by Harold Griffin; *Here Is Alaska*, by Evelyn Stefansson; and *Story of Alaska*, by Clara Lambert. Boys and girls will also find the Bibliography on page 520 of *WONDERS AND WORKERS* an aid in locating other good books to read independently.

EXTENDING THE UNIT THEME

Investigating real-life builders . . . Encourage pupils to bring in clippings from newspapers or magazines telling about the builders in our present-day world; e.g., a group of children who help harvest a "bumper" crop, a laboratory technician who patiently performs tedious experiments to double-check the efficacy of a new drug, a mechanic whose deft hands repair the disabled car that later wins the race, etc. The clippings might be mounted in a scrapbook, suitably entitled, and kept on the classroom library table.

Making a bibliography . . . New interest in reading may be stimulated by encouraging pupils to share the interesting books, stories, and magazine articles with which they have become acquainted. Ask each child to suggest books for a classroom bibliography to be displayed on the bulletin board, with new books added as the year progresses. So that pupils will know how to record their books and articles correctly, place the following sample entries on the blackboard and explain each briefly.

Meador, Stephen. *Black Buccaneer*. Harcourt, Brace and Co., New York, 1929.

Singmaster, Elsie. *Rifles for Washington*. Houghton Mifflin Co., Boston, Mass., 1938.

Readers' Guide to Periodical Literature. August 1946 edition.

ALASKA highway

Epic of the Alcan. *il Newsweek* 27: 108-Je 17 '46

Provide time at intervals for pupils to share with the class some of the interesting things they have learned through their extension reading. This may be done in an informal discussion with one individual acting as discussion leader.



Wonder Workers

THE TWENTIETH CENTURY . . . is truly an age of mechanical and scientific wonders—wonders which affect the lives of all of us. Amazing as these wonders are, however, many Americans accept them as casually as the weather.

Reading the selections in this unit should help modify such an attitude among boys and girls whose futures will be greatly influenced by new mechanical and scientific developments. The stories and poems should not only stimulate young Americans' interest in outstanding wonders but also excite their curiosity about a group of "wonder workers" commonly overlooked. For, the unit characters are not the celebrated scientists and inventors whose names are familiar to all, but everyday workers whose daring, skill, and trustworthiness combine to perfect the services of modern wonders for the pleasure, comfort, and safety of everyone.

In "Power Dive" the wonder worker is Barry Martin, who fights for a chance to prove himself a reliable test pilot—a hazardous but vital service in the constant struggle to make airplanes safe. Other daring wonder workers appear in "Making Underseas Movies," an account of two Hollywood photographers who, when suddenly faced by death in the form of man-eating sharks, escape when they discover an ingenious weapon to use against them. Alexander Botts, the enterprising super-salesman of Earthworms, proves himself a wonder worker in "Seagoing Tractor" when he saves a gentleman, four aunts, a niece, an airplane pilot, and a hotel owner by his agile use of the wonder-working Earthworm tractor. In "Plasma: Medical Wonder of Today," the many men who experimented on and perfected the golden dry powder are heralded as wonder workers in the field of science for the stirring miracles that plasma is daily accomplishing.

INTRODUCING THE UNIT THEME

Lead pupils to recall the story "News from the New World" and encourage them to describe the living conditions of Matt Over and the early colonists in America. Then suggest that pupils compare life in the colonies with life in America today—citing transportation, communication, and inventions that have made life more comfortable, etc. Encourage boys and girls to mention some of the many scientific innovations and developments which have become so much a part of our daily lives that we accept them almost without thinking—automobiles, airplanes, streamlined trains, movies, telephones, telegraph, radio, radar, electrical household timesavers, X ray, sulfa drugs, penicillin, etc. In informal discussion bring out the idea that because we take these modern wonders for granted, we often forget about the men and women who are continually working to improve these inventions and to make them increasingly available and usable—drivers and mechanics, pilots and engineers, operators and actors, doctors and laboratory workers, and the like. Emphasize that scientific innovations and the people who utilize these innovations are equally as important as wonder workers.

At this time pupils might be invited to tell about their scientific interests. Perhaps they will mention experimenting with chemical sets, designing and constructing model airplanes and boats, keeping their bicycles

or radios in good running order, using an electric food mixer or a sewing machine. The conclusion to be reached is that young people of today can do many things which would have seemed miraculous to adults of Matt Over's time.

Before the selections in this unit are read, introduce available reading materials related to the unit theme—books, such as those mentioned at the back of this **GUIDEBOOK**, and magazines, such as *Popular Mechanics Magazine*, *Popular Science Monthly*, *Science News-Letter*, *Science Illustrated*, *Science Digest*, or *Scientific American*.

Encourage boys and girls to bring in books and magazines from home or from the public library to add to the classroom collection of material about wonder workers. Throughout the unit pupils should also be requested to bring in newspaper clippings or pictures about modern workers on the job and to put them in a scrapbook to be kept during the reading of the unit. Members of the class may find some real-life stories as exciting as those in this unit.

◀ PAGES 120-130 ▶

Power Dive

PREPARING FOR READING

Call attention to the title "Power Dive" and have pupils read the background note on page 484. This background note may encourage speculation as to what makes a test pilot's job so dangerous and may also be used as a direct lead into the silent reading of the story.

EXTENDING INTERPRETATION

Worth-while discussion may be stimulated by such questions as: "What were the two things that seemed to be against Barry Martin in getting a job? Do you think Mr. Hamlin was right in refusing Barry a job with Starwing? How can you justify your answer?" Such points as the great cost of the planes, the danger to the entire company if incompetent men were hired, and Starwing's excellent record in the construction of airplanes should be mentioned. Bring out the idea that the work of many men over a long period of time, as well as a magnificent piece of machinery,

could be ruined in a few minutes if an inadequate person were at the controls. Then ask members of the class to cite passages in the first part of the story that seem to indicate to the reader that Barry did possess the knowledge and personal characteristics needed to make a good test pilot. Pupils should note that Todd Kelso, an experienced pilot, thought Barry was a natural-born flyer and that Barry had persisted in continuing his flying training even though it meant many personal disappointments and sacrifices.

In discussing how Barry proved his worth as a pilot, bring out the idea that Todd more than any other person had encouraged Barry to keep on with his flying. Lead pupils to express their opinions as to whether they think that Barry failed to live up to Todd's trust in him when, instead of returning the contract to Mr. Hamlin, he decided to fly the plane himself. Ask, "What do you think Todd's reaction was when he heard that Barry had flown the plane in the test flight?" Have pupils turn to page 126 and ask someone to read aloud the excerpt from the contract. Point up the provision in the contract which Barry probably regarded as justification for his action. Then comment, "Even though Barry proved his worth as a test pilot, do you think his flying the plane might have been a very dangerous and foolish thing to do?" In this discussion, the opinions of individual pupils should be respected.

The question "How do you know that the airplane Barry piloted was a very special one?" can be answered by reading between the lines. The class should cite such clues in the story as "'Sorry I can't ask you in, Barry. You know how fussy Hamlin is about this particular plane'" (page 122); "'... Hamlin will walk off with one of the biggest contracts ever awarded on the West Coast'" (page 123); and "'If he doesn't make it with this crate, he'll never make it'" (page 123).

Remind the class of the background note statement that "Power Dive" was written sometime before the Second World War and stimulate discussion on how aviation has progressed from the time of the writing of this story to the present. Mention Barry's statement "'We'll follow the beacons'" (page 124) and elicit how airplanes are guided today (radio beams, radar). Continue discussion, leading pupils to see that although airplanes have been greatly improved and many new flying aids have been developed, the work of test pilots remains virtually unchanged and is as dangerous—and as important—as ever.

EXTENDING SKILLS AND ABILITIES

Identifying specific meanings . . . To promote the ability to identify specific meanings and to give practice in using context to determine meanings, mimeograph or write on the blackboard the following groups of sentences. (Exercises of this type give valuable training in deriving meaning from illustrative sentences such as those commonly used in dictionaries.)

Group I

1. Everything at the airport was kept in perfect *order*.
2. The man belonged to an honorary *order*.
3. The pilots were reading the *order* posted on the bulletin board.
4. The names on the payroll must be written in alphabetical *order*.
5. Mr. Hamlin began to *order* Barry out of his office.
6. If the new plane was good, Starwing would receive a big *order*.
7. *Order* was quickly restored by the police.

Group II

- _____The mechanic took the wrenches of all sizes and arranged them in *order*.
- _____The sergeant maintained excellent *order* in his platoon.
- _____The *order* stated that the plane must be under guard constantly.
- _____The *order* for fifty airplanes came in last Friday.
- _____If he sees you, he will *order* you away at once.
- _____The secretary began to put his desk in *order*.

Have pupils read the sentences in Group I and discuss the meaning of *order* in each sentence. Then ask them to read the first sentence in Group II and tell which sentence in Group I uses the word *order* in the same sense. When the fourth sentence has been agreed on, write 4 in the blank before the first sentence. Let pupils continue independently with the other sentences in Group II.

Recognizing descriptive language . . . To help the boys and girls note and appreciate vivid descriptive language, have them skim the story for examples of that type of writing. As each example is volunteered, ask what word or words make the expression particularly helpful in picturing the thing or action described and what idea is suggested by the words. A representative list is given here for the convenience of the teacher.

"it trembled there" (page 123)

"a tail wind booting him along" (page 125)

"that same wind was *slapping him on the nose*" (page 125)
 "her exhaust *muttering*" (page 125)
 "it *snorted up* into the blue morning sky" (page 126)
 "The wind *whipped* around the ship" (page 126)
 "*needled* Barry's face" (page 126)
 "*Like a plummet* he fell." (page 127)
 "a *squealing, thundering, snarling* dive" (page 128)
 "he *flopped* the ship over" (page 129)
 "The motor *bellowed like a thunderbolt gone wild*." (page 130)

Structural analysis (suffixes) . . . To promote the ability to identify common suffixes as structural elements in words and to clarify their meaning and grammatical effect, write the following pairs of sentences on the blackboard, underlining the boldface words:

The *expense* of such a trip was more than he could afford.
 It was a very *expensive* trip.
 He wanted to *extend* his vacation.
 He took an *extensive* trip.

After the first pair of sentences have been read, bring out the meaning and grammatical usage of the suffix *ive* by asking pupils to think what the underlined word in the first sentence means and what its derivative in the second sentence means. The teacher should point out that *expense* as it is used in the first sentence means *paying out money; cost; laying out money*, while *expensive* means *costly; high-priced*. Ask pupils to rewrite the sentences without using the underlined words, showing the difference between *expense* and *expensive*. Continue with the other pair of sentences. If the teacher wishes, she may point out that the words ending in the suffix *ive* are used as adjectives, or that they tell "what kind." She might also explain that the addition of a suffix to a word often indicates a change in its grammatical usage.

In a similar fashion bring out the meaning or usage of the suffixes *ize* and *ship* with the following pairs of sentences:

The wound was covered with a *sterile* bandage.
 Always *sterilize* a needle before using it to remove a splinter.
 Both children had an *equal* amount of candy.
 The laboratory worker had to *equalize* the pressure in the two tanks.
 Radar is a *modern* invention.
 They decided to *modernize* the old farmhouse.

Jim was a plumber's *apprentice*.

Jim had to serve an *apprenticeship* of one year.

The original manuscript was written by an expert *penman*.

His *penmanship* was so poor that they could not read the letter.

The ability to understand the problems of others is one characteristic of a good leader.

Not everyone has the qualities of leadership.

Think-and-Do Book . . . Use pages 26, 27, and 28.

EXTENDING INTERESTS

Sharing personal interests . . . Encourage pupils who are interested in building model airplanes to bring their models to school and arrange them as an exhibit. A special period might be devoted to explaining and demonstrating the planes. If the class seems mature enough and sufficiently air-minded, an explanation of the blueprints used in constructing the models would be worth while.

Using a question box . . . Pupils frequently enjoy having a classroom question box in which they may place inquiries about modern scientific inventions. Such requests for information sometimes result from the pupils' reading of Unit III and sometimes from their extension reading. The teacher can do much to develop an inquiring attitude by seeing to it that satisfactory answers are provided for all questions. Time should be given for members of the class to examine the questions and to answer any that they can. If there are any "stumpers," the teacher may suggest possible sources of information—reference books, scientific magazines, or the school science department.

Extension reading . . . Suggest these books: *Heroes and Hazards*, by Margaret Norris; *Men Without Fear*, by J. J. Floherty; *Wings to Wear*, by Alice Hager; *Bob Wakefield*; *Naval Aviator*, by H. B. and D. Miller; *Skycruiser* (from which "Power Dive" was taken) and *Sky Freighter*, both by Howard M. Brier.

Those pupils who show a technical interest in airplanes and test flying may be referred to *Aeronautical Occupations*, by Captain Burr W. Leyson; *Aviation Cadet*, by Henry Boles Lent; *Aviation from Shop to Sky*, by J. J. Floherty; *Transatlantic Pilot*, by Frederic N. Litten; and *Getting Them into the Blue*, by Ernest K. Gann.

High Flight

PREPARING TO PRESENT THE POEM

John Gillespie Magee, Jr., was a young American poet who enlisted in the Canadian air forces shortly after the outbreak of World War II and served with the Canadians until his death. His poem, "High Flight," was fittingly chosen as the official poem of all British flying forces the world over.

In "High Flight," the young poet-pilot conveys his successive moods, thoughts, and emotional experiences as he first rises in the air, as he circles upward to gain height, as he breaks through the clouds, and finally as he reaches the untrespassed heights "Where never lark, or even eagle, flew." The words flow along—in tones that are smooth, soft, and effortless—like flight at its best. The words "sunward," "sun-split clouds," "sunlit silence" give a sense of light and beauty. "Laughter-silvered wings" and "tumbling mirth" contribute to the mood of gaiety. "Danced," "wheeled," "soared," "swung," "chased," and "hovering" are words of movement—they give a sense of smooth motion that contributes to the pilot's mood of exhilaration. The seventh and eighth lines call to mind a boy who once loved to run in the sun and the wind, but now has found a greater joy in the "footless halls of air."

In the second stanza the plane reaches the heights, and the pilot levels off into easy flight. The mood now changes from that of motion and gaiety to one of complete peace—of deep serenity. The thrill of having "chased the shouting wind along" gives way to a quiet sense of calmness. In the last three lines the poet senses the quiet peace of being closely in touch with God as he soars through the "high untrespassed sanctity of space."

Hearing the teacher's own oral interpretation of this poem will enrich pupils' appreciation of it. For the best oral interpretation, the teacher should read it aloud until she feels that she is able to convey through a smooth, effortless flow of words the varying moods of the young pilot—freedom, exaltation, and spiritual serenity.

PRESENTING AND INTERPRETING THE POEM

The poem may be introduced by some such comment as: "Almost everyone has a sense of power which is greater than himself. Maybe you, when walking along a wooded path, or standing on the top of a high hill, have suddenly appreciated the beauty, the moment, the scene so completely that you seemed to feel the unseen presence of the creator of this beauty. Imagine the feelings of a lone pilot who flies through the air on silver wings, soaring high into the sky, reaching space where birds have never spread their wings. The author of the poem 'High Flight,' who was a pilot in World War II, tells first of the power, the exaltation, then of the serenity and the peace which he felt when he 'slipped the surly bonds of earth.'" Then suggest that pupils read the poem silently.

There is a transition of mood in this poem which is essential to the full grasping of its significance. It starts with an intensely personal feeling of power and exhilaration and builds up to a feeling of power above and beyond oneself. When the poem has been read silently, the teacher may highlight this feeling by asking pupils what they sometimes do that gives them the feeling of sailing through space with sureness and power. (It may come in skiing or coasting—when starting down a steep hill at great speed. Perhaps some children have felt it when they skated fast and then glided effortlessly, or sailed before a strong wind, or even in a successful pole vault.) Develop the idea that such moments of apparently effortless movement and speed often bring with them this same sense of liberation and power which the pilot feels on a still grander scale.

Then introduce the idea that sometimes, after a swift sail, a hard climb up a mountain, a swift descent through snowy fields, there comes another feeling. We notice the vast sky, the giant trees, or the dazzling sun. We hear the wind in the treetops or we are impressed with the silence—just ourselves alone and *something else*. A power outside ourselves, so much greater than we are that we suddenly forget ourselves completely. We are alone, but we feel secure. When the pilot wished to express this feeling, he said he had "touched the face of God."

In order that pupils may have a chance to appreciate the words the poet has chosen, ask them to point out those which give a sense of light and beauty, those which contribute to the mood of gaiety and those which contribute to the mood of exhilaration. (These have been suggested for the teacher in the first section of this lesson plan.)

Reading of the background note will provide a lead into conversation about John Gillespie Magee, Jr., and the teacher might supplement the discussion with the information given in the first paragraph of the lesson plan. Then pupils should be asked to comment on why they think this selection was chosen as the official poem of all British flying forces. In this connection, bring out the idea that many other flyers must have experienced somewhat the same sense of exaltation and the same feeling of having "touched the face of God."

ORAL INTERPRETATION

The teacher may well present her own interpretation of the poem before asking pupils if any of them would like to read it aloud to the class. Those who volunteer should be given the opportunity to read the selection over again silently before reading it to the class. In connection with the oral reading, point up the idea that the interpretation of this poem should be as smooth and easy as the flight which the author describes.

EXTENDING INTERESTS

Enjoying poetry... The following poems are recommended: "Flight," by Harold Vinal, in *My Poetry Book*; "Prayer for a Pilot," by Cecil Roberts, in *One Thousand Poems for Children*; and "The Flyers," by Frank E. Hill, in *Poems for Modern Youth*. Since the latter poem is rather difficult, it is suggested that the teacher plan to give help with its interpretation.

◀ PAGES 132-140 ▶

Making Underseas Movies

PREPARING FOR READING

Mention that the title of the next selection is "Making Underseas Movies" and initiate discussion of any recent scenes in motion pictures which have shown divers working on the bottom of the ocean. Encourage pupils to speculate on how these pictures were taken. After members of the class have read the background note on page 485, ask them to look at

the picture on pages 132 and 133. Direct attention to the air and life lines leading in from the ship on page 132 to the diver on page 133.

Stimulate discussion as to what things are like at the bottom of the sea and ask pupils what dangers they think a photographer might encounter in taking underscas movies.

EXTENDING INTERPRETATION

Initial discussion of the selection may center first about Mr. Craig's experience and then about Craig himself, as revealed by his writing. Such discussion should highlight the fact that the author was very observant and that both he and Campbell probably owed their lives to the fact that Craig noted the shark's reaction to the bubbles and was quick-witted enough to turn this knowledge to his advantage.

Discuss what Craig meant when he said, "A man measures time by his mind and his soul, not by his body." Then ask such questions as: "What do you think were the feelings of the two men as they waited while the sharks were circling above them? In what way does the author indicate for the reader the slow passage of time?" Pupils should refer to the various passages on page 138 in considering these questions, and individuals should be asked to explain the meaning of specific phrases that denote long periods of time. Lead boys and girls to tell of occasions when a minute seemed like an hour to them.

Craig's respect for Antonio is evident in the selection, and pupils may be asked to find sentences illustrating this feeling and to tell why Craig had such great regard for him. If pupils do not mention Antonio's good advice, have them turn to page 137 and read the paragraph beginning "'Sure,' Antonio was saying." Stimulate discussion on the thoughts of the people on the tender during the time the divers were in such great peril and lead various members of the class to comment on how important it was that everybody concerned should keep calm. This may lead to speculation on what could have happened if anyone had acted imprudently—the danger from the "bends" if the divers were brought up too rapidly, the possibility of fouling up the air and life lines, and the fact that the sharks might attack instantly if they saw a fast-moving object. In connection with this discussion, the teacher might check to see that boys and girls have referred to the Help Yourself notes for the explanation of the word "bends."

Reference to or recall of the background note which states that "Making Underseas Movies" was taken from Captain John Craig's book *Danger Is My Business* might lead to a consideration of the question, "If a test pilot like Barry Martin were to write his own story of his work, why might he, too, call his book *Danger Is My Business*?"

Following this discussion, the teacher might point out that unlike the John Craig selection, which is a real-life adventure, the story "Test Pilot" is fiction. The term *fiction* might then be clarified by mentioning that in fictional stories, the people and the things that happen are "made up" by the author. Conclude by inviting pupils' opinions, based on these two selections, of the old saying that truth is stranger than fiction.

EXTENDING SKILLS AND ABILITIES

Discriminating between word forms . . . For boys and girls who have difficulty in discriminating between words that are similar in form, write the following pair of words on the blackboard: *surrounded—surmounted*. Then read the following sentence aloud and ask various members of the class to tell which of the two words is used in it: "The diver soon found himself *surrounded* by fish." Repeat this procedure with each of these pairs of words, forming, if possible, a sentence based on story content.

wandering	angles	commence	balloon	shark	smoke
wondering	angels	commerce	baboon	shack	snock

Structural analysis (suffixes) . . . To promote the ability to identify common suffixes as structural elements in words and to clarify their meaning and grammatical use, write the following sentences on the blackboard, underlining the boldface word.

*His stubborn refusal showed how **childish** he really was.*

Have pupils identify the root word and suffix in the underlined word and tell briefly what the root word and the derivative mean. (*child* means *young boy or girl*; *childish* means *like a child*.) Next write the following sentences on the blackboard:

*The **rectangular** box held a bottle of perfume.*

*We heard a **metallic** sound as our spade hit against the treasure chest.*

The *tyrannical* ruler was bitterly resented by the people.
She *was* impressed by his *gentlemanly* behavior.

Have pupils identify the root word and suffix in the underlined word in the first sentence. Ask, "How does the word *rectangular* differ in meaning from its root word *rectangle*?" (*rectangle* means a *four-sided figure with four right angles*; *rectangular* means *shaped like a rectangle*.) Continue in the same manner, writing the meaning of each derivative on the blackboard after the sentence in which it is used. Then ask, "Do you see any similarity in the meanings of these derivatives? If so, what?" Pupils should point out that the meaning of each derivative contains the idea of "like" or "having the nature of." Be sure pupils understand that even though the suffixes are different, each suffix has the same meaning when added to the root word in the above sentences. The teacher may also wish to point out that in each case the addition of the suffix has made an adjective out of a noun.

Encourage members of the class to write other sentences with such words as *heroic*, *amateurish*, *statuesque*, *ladylike*.

Think-and-Do Book . . . Use pages 29 and 30. Page 29 is designed to promote further the ability to identify prefixes and suffixes as structural elements.

EXTENDING INTERESTS

Collecting true wonder-worker stories . . . Following the reading of this story, members of the class might begin collecting newspaper or magazine accounts of the amazing accomplishments of movie or news photographers. Perhaps pupils may be interested in accounts explaining how trick photography is done in the movies. Those bringing in such clippings might be given time to tell the class about them before they are added to the Wonder-Workers Scrapbook. Trick snapshots by individual members of the class might also be brought in, displayed, and explained.

Locating information . . . Pupils should be referred to the *Cumulative Index to the National Geographic Magazine* and to the magazines themselves to locate articles written by Dr. William Beebe about his trips into the sea. In 1934, Dr. Beebe reached a depth of almost a mile by

using a steel ball, called a bathysphere, fitted with observation windows and oxygen tanks. The article "A Round Trip to Davy Jones's Locker," in the June 1931 issue of *The National Geographic Magazine*, tells of Dr. Beebe's preparations for one of his trips; and the accompanying pictures are excellent.

Sharing experiences . . . Members of the class who have visited large aquariums, natural history museums, the Marine Studios at St. Augustine, Florida, or have taken trips in glass-bottomed boats over tropical waters should be asked to share their experiences with the others in the classroom. If it is possible actually to make trips to any of these places, arrangements should be made for the entire group to go.

Extension reading . . . Boys and girls who enjoyed "Making Under-seas Movies" might like to read *I Like Diving*, by Thomas Eadie; *Exploring with Beebe*, by Dr. William Beebe; *The Iron Doctor; a Story of Deep Water Diving*, by Agnes D. Hewes; *Twenty Years Under the Sea*, by J. E. Williamson; *David Goes Voyaging*, by David B. Putnam; *On the Bottom*, by Commander Edward Ellsberg; *Lives of Danger and Daring*, by Hubert V. and Vansant Coryell.

Pupils who show a desire to read more about movie making might be referred to such books as: *Amateur Movie Production*, by W. J. Shannon; *Boys' Book of Newsreel Hunters*, by Irving Crump; and "Motion Pictures," in *Compton's Pictured Encyclopedia*, Vol. 9, pages 273-290.

◀ PAGE 141 ▶

Manual System

PREPARING TO PRESENT THE POEM

This humorous poem should be treated lightly and gaily. The poem itself is easy to present and to enjoy—but in case the picture and poem stimulate pupils' curiosity as to what the operator does and how she makes connections, one aspect of the subject—the handling of an incoming call—is briefly summarized in the next step of the lesson plan.

PRESENTING AND INTERPRETING THE POEM

The stage might be set for reading "Manual System" by some such comment as: "Today we have another poem by Carl Sandburg, but it is quite different from 'Makers of Speed.' We'll meet Mr. Sandburg in another mood in this poem. He once wrote that poetry is like the opening and closing of a door, leaving those who look through to guess the meaning of what has been seen during a moment. 'Manual System' represents Mr. Sandburg in a humorous mood, as he opens the door of a telephone office just long enough to reveal to the reader a brief glimpse of Mary sitting at the switchboard with 'a thingamajig clamped on her ears.' As to her thoughts during the time she is working, he leaves the reader to guess."

After the poem has been read silently, ask what it is that Mr. Sandburg calls a "thingamajig." Call attention to the fact that the poet twice mentions that Mary does the same thing all day long and bring out that with practice the work probably becomes automatic—leaving Mary with time to think of other things. Then ask pupils to speculate on what Mary thinks about. If the class as a whole is unfamiliar with the "manual system," explain that this system, in contrast to the automatic dial system, means that the requests for telephone connections go to an operator who makes the connections. Next direct attention to the switchboard in the picture and ask pupils if they have ever seen one like this. Perhaps some pupils can explain how the operator handles a call. If not, the teacher might give the following as the routine for answering an incoming call: with her right hand the operator will push one plug into the hole under a light that has just flashed on; with her left hand she will throw a little button, or key, forward. That makes it possible for her to speak directly to the person who is calling. After obtaining the request for a number, she will take the plug which is joined to the first by a long cord and put it into the hole under the number that was asked for. Then, with her left hand, she will pull the key toward her body, thus causing that person's telephone to ring. Ask pupils to explain the function of the headset and the mouthpiece.

ORAL INTERPRETATION

Several of the better readers in the class might give their oral interpretation of the whole poem. If pupils enjoy verse choir work, they will enjoy reading it in the following manner.

All: Mary has a thingamajig clamped on her ears
 Low voices: And sits *all day* taking plugs out and sticking plugs in;
 High voices: Flashes and flashes—voices and voices calling for ears to
 pour words in;
 Medium voices: Faces at the end of wires asking for other faces at the
 end of other wires:
 Low voices: *All day* taking plugs out and sticking plugs in,
 All: Mary has a thingamajig on her ears.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 31.

Going on a tour . . . If possible, arrange for the class to make a trip to a telephone office. Be sure to make all the arrangements in advance so that someone will be on hand to conduct the group and to make explanations.

Enjoying poetry . . . The teacher or a pupil might read aloud "Under a Telephone Pole," by Carl Sandburg, found in *Poems for Modern Youth*; and "Eletelephony," by Laura E. Richards, in *My Poetry Book*. The poems should then be made available on a library table, so that class members may read them independently.

◀ PAGES 142-157 ▶

Seagoing Tractor

PREPARING FOR READING

In introducing the story, ask pupils if any of them have ever heard of or read about Alexander Botts, the super-salesman. Since William Hazlett Upson's stories centering around this entertaining character have been appearing for many years in *The Saturday Evening Post* as well as in book collections, it is possible this super-salesman may already be familiar to some class members. Have someone read the first paragraph of the story aloud and ask pupils what kind of man they think Mr. Botts is. (His faith and trust in the product he sells is exceeded by only one thing—his abounding confidence in himself.) Then say, "With a man like Mr. Botts

as the hero, what kind of story do you think this will be—humorous or serious?" After this discussion, call attention to the sentence "It [the tractor] almost sells itself, and there would be no need for a super-salesman like me except for the fact that almost invariably something manages to go wrong at the last moment." Ask pupils what clue this gives them about the story. Suggest that the map on page 143 will be useful in locating places mentioned in the story.

EXTENDING INTERPRETATION

This amusing story is lighter in tone than the other prose selections in this unit, and so the treatment of the story may be rather informal. Suggesting that each pupil imagine he accompanied Mr. Botts on his eventful sales trip will enliven discussion of "the funniest thing that happened." Then say, "If you were an artist and wanted to make a series of humorous cartoons about this trip, which scenes would you choose to present? Which characters in the story could best be caricatured by an artist?"

Such questions as the following will provide a simple check on comprehension of detail: "Whose fault was it that Mr. Botts and his party got into such trouble? Do you think the super-salesman was in any way responsible for the trip's difficulties?" In the discussion, bring out the idea that for all his careful planning and much boasted knowledge of human nature, Alexander Botts was extremely gullible when he told his rival—Captain Dobbs—his entire plan and then asked information about the tides. Ask pupils to explain how the captain would have profited by Botts' failure to sell the Earthworm. Then elicit some of Botts' strong points—the fact that he was very attentive to detail as he made his plans, that he was always optimistic and most polite, that he kept his head in handling emergencies, and that he seemed to possess the faculty of turning disadvantages into advantages.

At this time the teacher might point out that although this selection is fiction, inventors and scientific engineers in real life need to be expert salesmen, also, if they hope to have their ideas accepted. To extend this thought, introduce page 33 in the THINK-AND-DO BOOK by some such comment as, "This selection concerns a real salesman who sold his engineering ideas which were once new and different, but which are commonly accepted by us all today."

EXTENDING SKILLS AND ABILITIES

Extending vocabulary . . . This lesson is designed to heighten pupils' interest in new words encountered in reading and to promote the use of these words in extending pupils' vocabularies.

The teacher might begin the discussion by some such comment as: "It is always fun to use new words, but sometimes people use them without being quite sure of their meanings. Take, for example, the sentence 'During the emergency the man remained column.' What word was misused in this sentence? How would you use it correctly in a sentence?" Encourage pupils to mention other instances from their personal experiences or from listening to radio programs in which words have been used incorrectly. After writing the following sentences on the blackboard, have pupils first point out the word that has been used incorrectly and then use it correctly in an oral sentence.

1. He thought his imitation into the fraternity was a fair one.
2. There were only two arrows in the quaver.
3. The manager received a celery of \$7000 a year.
4. The little boy picked all the pedals off the rose.

Next write the sentence, "The good roads made the farm *inaccessible* from the city." Say, "The underlined word in this sentence is a new word which appeared in the story which you have just read. Is the word used correctly in the sentence on the blackboard? What root word do you see in *inaccessible*? What do you think it means? [approach to places, persons, or things] How would you use the word *access* in a sentence? When we add the suffix *-ible* to *access*, what new word do we have? How would you use *accessible* in a sentence? What does *inaccessible* mean? Use it correctly in an oral sentence." Then suggest that pupils skim the story "Scagoing Tractor" and make a list of the new words which they think they might like to use in their everyday conversation. Encourage members of the class to add to this list during the reading of the next few units.

Think-and-Do Book . . . Use pages 32 and 33.

EXTENDING INTERESTS

Creative art . . . Many pupils will be amused by the amazing mechanical contrivances drawn by Rube Goldberg if some of his cartoons are

brought to the classroom, displayed, and discussed. Encourage boys and girls to plan similar contrivances that they would like to have invented to relieve them of certain tasks—such as dishwashing or lawnmowing—and draw the inventions as they think they would look. Time should be arranged for pupils to show their drawings to others in the class and explain them. Some of the boys might like to construct “inventions” of this type and bring them to the classroom for display.

Sharing individual knowledge and experience . . . Pupils may be interested in telling the class about unusual new mechanical inventions for getting work done quickly and efficiently with which they have come in contact. Illustrative pictures might be shown as the machines are explained. Such magazines as *Science Illustrated*, *Popular Science Monthly*, *Popular Mechanics Magazine*, as well as advertisements in many other magazines will supply almost unlimited examples.

Extension reading . . . Suggest the following books: *Botts in War*, *Botts in Peace*, by William H. Upson; *Pick, Shovel, and Pluck*, by Alexander R. Bond; *Wonders of Science*, by Eva M. Tappan; and *The Boys' Book of Remarkable Machinery*, by Ellison Hawks.

◀ PAGE 158 ▶

Death of a Hero

PREPARING TO PRESENT THE POEM

“Death of a Hero” is a gay bit of nonsense inspired by a headline in the *New York Herald Tribune*. As the background note suggests, there must have been a twinkle in the poet’s eyes as he wrote it. The teacher should practice reading the poem aloud several times to get the feel of the words and to appreciate the lightness of the tone.

PRESENTING AND INTERPRETING THE POEM

The background note on page 488, the title of the poem, the picture, and the two lines preceding the actual poem are all the introduction needed for Armour’s bit of fun.

After the silent reading the teacher might ask, "Who is the hero of this poem? Were you surprised at this? Why? Do you think the poet meant that science is no longer wonderful or do you think that he was just poking fun at scientists for the moment?"

ORAL INTERPRETATION

Pupils will like this humorous poem, and several members of the class should be given the opportunity to read the entire poem aloud.

EXTENDING INTERESTS

Creative writing . . . Suggest that boys and girls might read the daily newspapers to find suitable subjects for short poems. Discuss what the young people have found and encourage them to try writing short poems on any of the subjects which appeal to them.

Enjoying poetry . . . To continue the mood of fun with poetry, suggest for extension reading such poems as "Only My Opinion," by Monica Shannon, in *My Poetry Book*; and "There Was a Guinea-Pig," author unknown, in *One Thousand Poems for Children*. The teacher might provide opportunity for pupils to share these poems, or others the boys and girls have found, with class members.

◀ PAGES 159-164 ▶

Plasma: Medical Wonder of Today

PREPARING FOR READING

Call for a volunteer to pronounce the first word of the article and invite all class members to tell what they already know about this medical wonder. After a brief discussion, suggest that pupils read all the Help Yourself notes and then the article itself to see what additional information the authors, Mr. Charles H. Ellis, Jr., and Mr. Robert E. S. Thompson, can supply.

EXTENDING INTERPRETATION

After the silent reading, encourage pupils to tell what new information about plasma they gained from this selection. Focus attention on the life-saving properties of blood plasma by asking, "How do the incidents described in the selection explain why the words 'miracle-working' are so often used in speaking about blood plasma?" Encourage pupils to cite instances involving the use of plasma, mentioning the success with which plasma has been used in cases of shock brought on by terrible wounds, burns, hemorrhage, or in cases where patients are being strengthened for operations. Call attention to the part blood plasma played in the Second World War and bring out the need for adequate supplies of blood and blood plasma during peacetime as well. Elicit, also, the advantages of using plasma rather than whole blood. If the question arises as to why blood plasma cannot always be used for transfusions, the teacher might explain that in cases of wounds caused by heavy explosions, when there is a great loss of blood cells as well as shock to be combated, whole blood must be used since blood plasma does not contain blood cells. At this point the members of the class might be interested in the fact that although there are many human races, there are only four different types of blood, and these blood types are to be found in individuals of every race and color.

Stimulate discussion of why the work of many individuals has been necessary to perfect blood plasma and to develop efficient techniques of preserving and administering it. Be sure pupils realize that both the scientists who discovered and perfected plasma and the hospital attendants who, as a part of their daily duties, administer it are wonder workers.

Bring out the idea that this selection differs from the others in the unit in that it is an informative article—one that informs the reader about a subject. Have pupils recall the preceding selections in the unit; the teacher might then point out that the stories were written to appeal in different ways to the reader's various interests. Elicit that "Power Dive" and "Making Underseas Movies" appeal to the desire for excitement, and that "Seagoing Tractor" appeals to the reader's sense of humor. Then ask pupils what they think the author's purpose was in writing "Plasma: Medical Wonder of Today." Mention that this selection was condensed from a longer one that appeared in the May 2, 1942, issue of *The Saturday Evening Post*. The date should help pupils infer that the author's purpose

was to give people information on blood plasma that would lead them to donate the blood so badly needed during World War II.

EXTENDING SKILLS AND ABILITIES

Organizing Ideas . . . To aid pupils in selecting main ideas and organizing them in tabulated form, encourage class members to reread the article and make a chart showing, in chronological order, each contribution, the man or men who were responsible for it, the locality and the date associated with it. In regard to locality, the teacher should point out that scientists in various parts of the world are working on universal scientific problems. If pupils can secure reliable information on additional contributions not mentioned in "Plasma: Medical Wonder of Today," the teacher might write the necessary information on the blackboard so that pupils may add it to their charts. The following form, based on information given in the article, is suggested for the chart:

Blood Plasma and Its Development

Year	Man	Contribution	Locality
1900	Karl Landsteiner	Discovered (1) that there are different blood types; (2) that transfused blood must match patient's blood	Vienna
1914	Dr. Richard Lewisohn Prof. L. Agote	Discovered that adding sodium citrate to blood would prevent clotting	New York Buenos Aires
1915	Dr. Richard Weil	Discovered that such blood could be stored five days and transfused safely into another person	New York
Feb. 1, 1916	Dr. Peyton Rous Dr. J. R. Turner	Discovered that such blood stored four weeks could be safely transfused	Rockefeller Inst., New York
About 1916	Dr. Oswald H. Robertson	Discovered that such blood could be used successfully at battle-fronts even though stored 26 days	France
After 1918	Dr. Max M. Strumia	Discovered (1) that plasma could be used without causing convulsions and in large amounts; (2) plasma could be frozen and stored indefinitely	Bryn Mawr, Pa.

1930	Dr. William Elser	Discovered how to convert plasma into powder form	Cornell University
1934	Dr. Percival Nicholson	Proved that plasma could be used in place of whole blood in treatment of patient suffering from mastoiditis and blood-stream infection	Bryn Mawr, Pa.
About 1934	Dr. John Elliott	Proved that time and travel did not harm plasma	Salisbury, No. Carolina
1941	American Red Cross	Discovered efficient ways of collecting blood by setting up blood donation centers and mobile medical units	Almost all cities and towns

Think-and-Do Book . . . Use pages 34 and 35.

EXTENDING INTERESTS

Satisfying personal interests . . . Pupils who are interested in learning more about early pioneering in the study of blood should be encouraged to look under the name of William Harvey in encyclopedias or other reference books. Suggest also that they consult the *Readers' Guide to Periodical Literature* for articles on recent developments in the use of blood plasma and whole blood and also in the field of medical drugs.

Locating and sharing information . . . Suggest that pupils secure information about the blood banks in their own locality or about those in cities near them—when and how they were started, under whose auspices they are run, and the extent of their services. Arrange a time for reports on this information to be given to the class.

Extension reading . . . Call attention to the Bibliography for Unit III on page 521 of *WONDERS AND WORKERS* and ask pupils to indicate which of the books listed there appear to further the ideas gained in "Plasma: Medical Wonder of Today." Suggest that the boys and girls look through the books and plan to read those that appeal to them. Other books that may prove interesting at this point are: *Microbe Hunters* and *Hunger Fighters*, both by Paul DeKruif; *The Story Behind Great Medical Discoveries*, by Elizabeth R. Montgomery; and *Single Stones*, by Gertrude E. Mallette.

EXTENDING THE UNIT THEME

Sharing information . . . The class may select a committee to open the Question Box that was started at the beginning of the unit and then present the questions to the class. In so far as possible, answers should be given by class members; however, with those questions that are too difficult, the teacher might call for volunteers to do the necessary research and report back later to the group. Suggest that the Question Box be returned to its customary place and used again for individual problems and queries that may arise in reading other units in *WONDERS AND WORKERS*.

Composing sketches . . . Encourage pupils to compose brief sketches about famous inventors, well-known workers, or familiar mechanical contrivances. These sketches might be entitled "Who Am I?" or "What Am I?" Then allow time for boys and girls to read their sketches to the class so that the other class members may guess the identity of the person or thing described in each case.

Some individuals may also enjoy writing and presenting sketches called "Then and Now" in which some method of work is described as it was done in early days and contrasted with how it is done today. For example: early soap making vs. modern preparation of soap in factories. In preparing these sketches, suggest that pupils use encyclopedias and reference books to secure new information and to verify known facts.

Relating reading and life experiences . . . To promote awareness of the important part mechanical wonders and wonder workers play in our lives, suggest that pupils might keep a "wonder-worker" account of their lives for one day. Have them tabulate their information under such headings as the following:

Activity	Modern wonder	Wonder worker
Getting tooth filled	Electric drill	Dentist

Give pupils a chance to share their reports with the class and at that time stimulate a discussion on the skills and character traits needed by the wonder workers they have met as well as the type and extent of training each must have. Conclude by encouraging pupils to speculate on what their lives would be like were all these wonders and wonder workers suddenly to disappear.



Good Stories of Imagination

THE TALES . . . of this unit, recording the unique adventures of people in faraway places and of long-ago times, will capture the imagination of the young reader. Color and pageantry, combined with stirring action, will carry him into realms of the fanciful, the romantic, the heroic. There, in imagination, he will gaze in wonder at such strange sights as the awesome spectacle of a volcanic eruption, the rich trappings of a medieval tournament, and a terrifying attack of the Tartars. He will follow eagerly the stirring action that highlights the heroic qualities of the story characters—the faithfulness of the dog of old Pompeii, the skill and daring of the mysterious Saxon knight in "The Tournament at Ashby," the dauntless courage of Polish Elzbieta and Stefan, the bold assurance of both the romantic Lochinvar and the dashing hero of Noyes' "Highwayman." These stories and poems of imagination will satisfy children's need for vicarious adventures and at the same time will aid in developing appreciation of fine literature.

INTRODUCING THE UNIT THEME

The title of this unit may be used to initiate speculation on the type of story pupils would expect to be included in a group of "Good Stories of Imagination." After boys and girls have considered this, suggest that they read the background note for each story and poem and choose the selection they think sounds like the most exciting tale. Then, on the basis of what has been learned in the background notes, the young people might be encouraged to suggest other stories they have already read which seem to fit in with this unit theme. After suggestions, such as King Arthur stories, Paul Bunyan yarns, etc., ask pupils to give their reasons for choosing these stories as appropriate for this unit. The unit's title and the background notes should help pupils conclude that the selections have developed from the imaginations of the authors and that there are numerous other enjoyable stories which have also been imaginatively woven about colorful times and events.

An attractive display in the classroom of such fanciful stories as are suggested on page 521 of the Bibliography in *WONDERS AND WORKERS* will aid in establishing and maintaining interest in extension reading. This Bibliography will be useful throughout the unit as a source for suggestions for supplementary reading.

◀ PAGES 166-177 ▶

The Dog of Pompeii

PREPARING FOR READING

After calling attention to the title of the story, have pupils read the background note on page 489. Allow time for comments on the background material and for the sharing of any information which pupils might have about the ancient city of Pompeii or about its excavation.

EXTENDING INTERPRETATION

Following the silent reading, members of the class should feel free to express their opinions as to whether or not they think Mr. Untermeyer's tale is a good explanation of what the little dog that was found by the

excavators might have been doing. Allow for varying reactions, but bring out the idea that the author built a very colorful and convincing story on a very minor detail.

Focus attention on Bimbo by having pupils tell whether or not they agreed with the author when he said that Bimbo was more the master than Tito and have them cite examples from the story supporting their opinions. Pupils should mention that Bimbo seemed to possess an understanding of Tito's helplessness and that during the eruption of the volcano, he not only guided, pulled, and coaxed Tito but actually forced him to safety.

Such comments and questions as the following should help point up Mr. Untermeyer's artistry in telling this story: "Since Tito was blind, one might think that he would miss much that went on in the city. How do you know that Tito was aware of many of the everyday happenings in Pompeii? What were some of the things that Tito noticed before and during the eruption even though he had no way of knowing what was actually happening? Do you think Tito as a blind boy was more frightened during the eruption than a person who was able to see? Why or why not?" In the discussion that follows, lead pupils to note that the author has told some of the incidents in this story from the point of view of a blind person and ask the boys and girls what effect this method of storytelling had on their reactions and their interest in Tito's adventures.

Another storytelling device used by the author is that of foreshadowing. To stimulate awareness of this technique, ask pupils why they think the author mentioned early in the story the earthquake that had occurred some years before. Also have them relate the explanations the people of Pompeii had for this earthquake (pages 169-170) and the forewarning given by the man with the thin voice in the forum (pages 170-171). Then ask, "Why do you think the people who heard this man gave little or no heed to his warnings?" Point out that even though the people ignored the prophecy, the author is helping the reader anticipate the climax of the story and explain that this device is called "foreshadowing."

To extend interest in the historical background of this ancient city of Pompeii, the teacher might inform members of the class that in the nearly 600 years of the city's existence, prior to the eruption in 79 A.D., Pompeii, located a mile from Mt. Vesuvius and on the Bay of Naples, had become a prosperous and gay city with a population of about 20,000.

people. The lava from ancient eruptions on which the city was built made good soil for grapes and furnished stones for buildings and pavements. After the eruption in 79 A.D., Pompeii, buried under 8 to 10 feet of pumice and 6 to 8 feet of volcanic ashes, remained buried and was gradually forgotten for nearly 1800 years. Then in 1748 an Italian peasant came across traces of one of the city's buried walls while digging in his vineyard. Since then the city has been gradually dug out, and its ruins have proved a rich source of information, for they tell the story of everyday Roman life as it is told nowhere else.

EXTENDING SKILLS AND ABILITIES

Promoting vivid imagery . . . Remind pupils that Mr. Untermyer has described much of the life in Pompeii and many of the events in the story in terms of what the blind Tito experienced by touching, smelling, hearing, and tasting. Call attention to the comment which the author makes about Tito on page 168, "If he [Tito] could not see the sights that delighted the lads of Pompeii, he could hear and smell things they never noticed." Encourage pupils to find examples on page 168 that bear out this statement and have them tell which of his senses Tito used to discover what was going on about him. Next ask members of the class to turn to page 170 and skim the passages beginning with "People were talking about it this afternoon" and ending on page 171 with "and the quick shuffle of feet told him the stranger had gone." After the boys and girls have mentioned which one of the senses Tito used to learn what was going on in the market place, ask them to point out such instances of auditory imagery as: "rumbled a voice," "a thin voice Tito had never heard before," "It had a high, sharp ring to it," etc.

Next have pupils skim the part of the story that tells of the events that immediately preceded and that occurred during the eruption and ask the young people to find examples of phrases or sentences that appeal to any of the senses except sight. As each phrase is suggested, write it on the blackboard, have boys and girls note which sense is appealed to in every instance, and encourage various members of the class to tell what picture the author's description brings to their minds. Conclude by asking how this same thing might have been described by a person who could see. Some of the sentences and phrases which may be suggested by pupils are given on the next page for the convenience of the teacher.

"... a fog that got into his throat and made him cough." (page 172)
 "The air was hot and heavy, so heavy that he could taste it." (page 172)
 "The air ... had turned to powder ... that stung his nostrils and burned his sightless eyes." (page 172)
 "The earth twitched; the twitching changed to an uneven shrugging of the soil." (page 173)
 "... a sharp crackling, like a monstrous snapping of twigs; then an explosion that tore earth and sky." (page 173)

To promote awareness of details that aid in visualizing a story setting, have boys and girls find words and phrases in the story that describe the old Roman city of Pompeii. For example, pupils might mention such things as the city wall, the inner gate, the chariots, etc. Then, as these are pointed out, encourage pupils to give their own description of a city wall, etc.; in addition, these might be used as a basis for comparing the old setting with the modern features of a city in the United States.

Deriving word meanings . . . To promote the ability to derive word meanings from context, call attention to the fact that the meaning of new words encountered in reading can often be determined by the context in which the word appears. Clarify the term *context* by explaining that it refers to the parts before or after a word, sentence, etc. that influence its meaning. As an example, write on the blackboard the sentence "Two children sat on the sidewalk playing a game of jackstones." Ask members of the class to tell how the general context as well as specific clues in the sentences aids in determining the meaning of the word *jackstones*. Then have pupils locate in text each of the sentences given below and tell how the context gives a clue to the meaning of the boldface word.

"The priests said that the gods took this way of showing their anger to those who refused to worship properly or failed to bring enough sacrifices to the **altars**." (pages 169-170)

"Tito could hear the air whistle as the speaker drew his **toga** about him, and the quick shuffle of feet told him that the stranger had gone." (page 171)

"They fell on his head, his hands—**pumice** stones from the black heart of Vesuvius!" (pages 175-176)

"Scientists were restoring the ancient city; **excavators** were working their way through the stones and trash that had buried the entire town." (page 177)

Think-and-Do Book . . . Use pages 36-37 and 38.

EXTENDING INTERESTS

Creative expression . . . Suggest that members of the class may have a different idea from Mr. Untermeyer's about what the dog was doing in the bakery at the time of the eruption. Encourage pupils to write stories based on the incident described on the last page, just as Mr. Untermeyer has done, or ask, "What other interesting things might the excavators have found? What story might you write about some other interesting object found in the ruins?" When the stories are completed, time should be given so that they may be read aloud to the class.

The teacher might suggest to pupils that they imagine how the destroying of the ancient city of Pompeii might have been described in a radio report, told about in a newspaper article, or described by an on-the-spot reporter and invite boys and girls to write up their reports and read them aloud. In preparing their articles, members of the class may consult reference books for information which historians and scientists give about the ancient city and its destruction and add any imaginary details or incidents which will add to the interest of the report.

Using reference materials . . . There are between 300 and 400 active volcanoes on the earth's surface, and the appearance of new ones now and then always merits mention in newspapers and magazines and over the radio. To clear up faulty concepts as to the scientific explanations for these phenomena of nature, encourage pupils to find more about why volcanoes suddenly appear, why craters, that are seemingly dormant, suddenly become active again, etc.

For boys and girls who are interested in learning more about Pompeii and the life there before the eruption of Vesuvius, suggest that encyclopedias and other reference materials offer many interesting details together with numerous pictures. Time should be provided so that these findings may be shared with the rest of the class.

Extension reading . . . Suggest to boys and girls who liked "The Dog of Pompeii" that they might enjoy *Before Homer*, by Thames Ross Williamson. If the young people are interested in other facts discovered in the excavation of Pompeii, suggest pages 1-93 of *Buried Cities*, by Jennie Hall. A good book about famous volcanoes is *Volcanoes New and Old*, by Satis Narrona Coleman.

Lochinvar

PREPARING TO PRESENT THE POEM

In preparing to present this narrative poem, the teacher should note first of all that it is a dramatic, colorful, and swift-moving ballad or story poem. In the reader's preparation for oral interpretation, he should emphasize the ideas in the story rather than the poem's galloping rhythm.

PRESENTING AND INTERPRETING THE POEM

The background note will serve as a lead into informal conversation about ballads with which boys and girls are familiar and about how the ballad form of storytelling originated. (See the chapter on ballads in *Children and Books*,¹ by May Hill Arbuthnot, or the explanation given on pages 158-159 in the *GUIDEBOOK FOR PATHS AND PATHFINDERS*.)

As background for the reading of this poem, explain to pupils that the poet, Sir Walter Scott, collected ballads all his life and often wrote poems in ballad form. Even though he was lame, he often rode great distances over the rough countryside to listen to and copy down a ballad which he had not heard previously. (A brief biography of Sir Walter Scott will be found on page 39 of the *THINK-AND-DO BOOK*.) Then tell the class that in this poem the poet tells the story of a brave knight, Lochinvar, who, having lost his sweetheart to another man, was determined to win her back.

With some groups, it might be wise to clear up the meaning of certain words by some such comment as: "There are a number of words in this poem with which you are probably not familiar. For instance, *cowardly* means cowardly, a *laggard* means a backward person, while a *dastard* is a mean coward. As you read the poem, you may also note words which are not commonly used at the present time; for example, *bridal*, which, as it is used in this poem, means wedding, and *broadsword*, which is a

¹Published by Scott, Foresman and Company.

sword with a broad flat blade." Explain any others of the following words and phrases which the boys and girls are not likely to know: *quaffed* (drank freely); *tread a measure* (to dance); *galliard* (quick, lively dance for two people); *croup* (rump of a horse); and *scour* (steep, rocky place on a mountainside). These words and their meanings might also be written on the blackboard for easy reference during the silent reading.

When pupils have read the ballad silently, a brief discussion of the stratagem by which Lochinvar induced Ellen's father to put aside his sword may be initiated by the question "How did Lochinvar approach the father and subdue his anger when the knight interrupted the wedding party?" Point out the line "Love swells like the Solway, but ebbs like its tide," and if pupils do not understand, explain that the young knight was saying that his love for the girl was dying and all that he wished was one last dance and a cup of wine. Members of the class should give their opinions as to the real purpose of that one last dance of Lochinvar with his lady.

The question "How does the poet make you feel that Lochinvar was more worthy of Ellen than the bridegroom?" should lead the class to note the poet's use of such words as *laggard*, *craven*, and *dastard* in referring to the bridegroom. In contrast, pupils should note that Lochinvar is described as "So faithful in love, and so dauntless in war, There never was knight like the young Lochinvar."

To bring out the "racing and chasing" rhythm of the poem, particularly in the last stanza, the teacher should read this stanza aloud, emphasizing the meaning as well as the rhythm. Then ask pupils if they think the last stanza would convey the same meaning if the rhythm were slow or uneven and have them give reasons for their answers. In the discussion bring out the idea that the rhythm adds zest to the poem.

ORAL INTERPRETATION

This poem is well-suited to reading in parts, since it contains good dialogue. One pupil may read the narrative while other pupils read the parts of the bride's father, of Lochinvar, and of the bride-maidens. Caution—in the oral reading the ideas of the story rather than the rhythm of the poem should be highlighted, lest the "sing-song" rhythm prove a pitfall.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 39.

Enjoying poetry . . . Pupils may wish to read or hear poems from *Some British Ballads*, a collection of folk ballads illustrated by Arthur Rackham. "Get up and Bar the Door," a humorous ballad from this collection, may also be found in *Children and Books*. "Hunting Song," by Sir Walter Scott, may be found in *One Thousand Poems for Children*.

Listening to ballads . . . Class members may have recordings of folk songs that could be brought and played for the class. The ballad "Lord Randal" has been recorded, and the story-ballads of Robin Hood can also be heard on records. There are innumerable other recordings of simple folk tunes by Burl Ives, John Jacob Niles, and Richard Dyer-Bennett, which can be listened to and enjoyed by young people.

◀ PAGES 181-197 ▶

The Tournament at Ashby

PREPARING FOR READING

In introducing this story, call attention to the fact that it is written by the same author as "Lochinvar." Then ask pupils to read the title, look at the accompanying illustrations, and speculate on the nature of the story. If boys and girls do not use the word *tournament* in talking about the story, the teacher should introduce the word and explain that, as used in this story, it is a contest between two groups of knights on horseback. As background, the teacher might explain that in "The Tournament at Ashby" the conflict centers around the antagonism between the Normans and the Saxons. The background note on pages 490-491 gives additional details and provides a good lead into the reading of the story.

EXTENDING INTERPRETATION

Initiate discussion by having pupils comment briefly on how Sir Walter Scott used fearless men, lovely ladies, and mystery to make this story

a fascinating one. Continue by encouraging pupils to express their opinions as to how the mystery of the Disinherited Knight added to the interest and the suspense of the story and have them cite clues in the story that provided hints as to the identity of the knight. The qualities of the Disinherited Knight may be highlighted through discussion of Ivanhoe's dramatic entrance into the lists. Lead pupils to tell why they think Ivanhoe wanted to take part in the contest even though he had been banished. Bring out the idea that the young Saxon must have had a deep sense of honor and probably wanted to insure the defeat of the Normans even though it was only in a tournament.

Next encourage the young people to recount the reasons for Ivanhoe's banishment and to surmise how his deeds at the tournament might have later changed Sir Cedric's opposition to Ivanhoe's courtship of Lady Rowena. Then ask, "Do you think it would be better or worse for the Saxon cause if Lady Rowena married Ivanhoe instead of Athelstane, the descendant of the great Saxon King?" Differences in opinion on this point should be respected, but make sure pupils realize that Ivanhoe was a distinct asset to the Saxon cause.

To help pupils appreciate the color and pageantry of the tournament, ask, "How did this story add to your ideas about medieval tournaments and battles?" Discussion might be centered on such points as the splendor of the knights in their bright plumes and glittering armor; the reason for using armor, its weight, and the size of the lances and shields; the gaily adorned pavilions and galleries; the rules of conduct for such a passage of arms; and the contest itself. Attention should also be directed to the illustrations of the story as aids in visualizing the knights' equipment. Then ask, "What kinds of skill do you think were required to participate in such a contest?" Boys and girls should give reasons for their answers.

EXTENDING SKILLS AND ABILITIES

Visualizing story scenes . . . To promote the ability to visualize from a series of details, ask pupils to reread the passage beginning with the last paragraph on page 181 and ending with the third paragraph on page 183. On the basis of this description, have members of the class draw individual diagrams of the lists, or field of combat, and label such points as the pavilions of the challengers, the enclosed space for the

opponents, the gallery for Prince John, and the gallery for the Queen of Beauty and Love.

Comprehending definitions . . . To give practice in using the Glossary or dictionary and the Help Yourself notes to derive word meanings, write the following questions on the blackboard. Ask members of the class to answer them and give reasons for their answers. Then have pupils check both their answers and their reasons by looking up the bold-face word or phrase in each sentence in the Glossary, dictionary, or in the Help Yourself notes.

1. When Ivanhoe returned from banishment without being pardoned, was he *presumptuous*?
2. Did Bois-Guilbert show *prowess* at any time during the tournament?
3. If the Prince had given a speech explaining the rules of the contest, would he have been delivering a *eulogy*?
4. Were the spectators surprised when Ivanhoe *defied* Bois-Guilbert to *mortal combat* rather than choosing the "arms of courtesy"?
5. Was Prince John a member of the *yeomanry*?
6. Were the *knight challengers* Norman or Saxon knights?

Think-and-Do Book . . . Use pages 40, 41, and 42.

EXTENDING INTERESTS

Preparing a picture exhibit . . . Pupils may be interested in preparing a picture exhibit of medieval men and women in everyday dress, knights in armor, and medieval castles. The teacher might mention that some of these medieval castles are in existence today and that a good source for pictures of them would be travel folders of Scotland, England, etc. Encourage boys and girls to bring to class any pictures which they might find in current magazines and newspapers and suggest that the young people make use of such library facilities as the card catalogue and reference books for other sources of pictures.

Extension reading . . . Other exciting stories which boys and girls might like to read are *Bow Bells*, by Katharine Gibson, and *Twelve Bright Trumpets*, by Margaret Leighton; both books have good adventure stories which take place in the Middle Ages. Pupils who are interested in the everyday life of those times might also like *Life on a Mediaeval Manor*, by William Davis.

The Highwayman

PREPARING TO PRESENT THE POEM

"The Highwayman" is an adventure and a love story packed full of action and suspense. In it the poet skillfully uses both words and rhythm to establish the mood and to create the imagery necessary for the interpretation of the poem. The definite breaks in mood and rhythm that occur throughout make this a poem of sharp contrasts and add to the drama of the story that is told.

The teacher should make sure that her own oral interpretation reflects these contrasting moods as well as the variations in rhythm. In presenting the poem to pupils, it is suggested that the actual reading of the poem be done in a group situation so that the teacher may give guidance in interpretation as the reading progresses. Specific suggestions for this detailed interpretation are given in the next section of the lesson plan. Each individual teacher, however, should use her own discretion as to the manner in which this poem might best be projected to the young people.

PRESENTING AND INTERPRETING THE POEM

In the presentation of "The Highwayman," one might explain that it is written about a time when travelers ran many risks of attack by bandits, and that this poem is both an adventure and a love story about a highwayman, or robber, who loved and was loved by beautiful black-eyed Bess, the innkeeper's daughter.

Stanzas 1 through 4 . . . Before the actual reading of the poem begins, the teacher might wish to indicate briefly to pupils the significance of each of the first four stanzas as an aid to interpretation: stanza 1—the author draws a vivid picture of the setting; stanza 2—the poet introduces the highwayman as the hero of the story; stanza 3—the author introduces the love element in the story, and the heroine appears; stanza 4—the poet introduces the villain.

The first three stanzas might be read aloud by the teacher to set the auditory pattern and to point up the variations in mood and rhythm. The first three lines of the first stanza have a smooth, flowing rhythm; but in the last three lines of the stanza we hear the clean-cut galloping rhythm as the horseman comes "riding—Riding—riding." The reading of the second stanza and the first three lines of the third should reflect a mood and rhythm that is as light and gay as the dashing robber with his "French cocked hat." An abrupt break in rhythm appears with the line "But the landlord's black-eyed daughter" and continues to the end of the third stanza as the presentation of ideas takes precedence over the metrical beat.

Beginning with stanza four, pupils may take up the silent reading of the poem under the teacher's guidance. In the fourth stanza the gay mood of the preceding stanzas changes to one of stealth and watchfulness as the secret and jealous admirer of the highwayman's sweetheart appears.

Stanzas 5 and 6 . . . These two stanzas describe the meeting of Bess and the highwayman. The watchful, mysterious mood that surrounded Tim, the stableman, is suddenly changed—one feels the bold assurance of the highwayman as he calls, "One kiss, my bonny sweetheart."

Stanzas 7 through 11 . . . Written to convey a mood of mounting suspense, these stanzas build rapidly to a dramatic climax in the line "The tip of one finger touched it! The trigger at least was hers!" The tension and drama of the lines are projected to the reader through the reactions of Bess as she waits and watches for her sweetheart.

Stanzas 12 and 13 . . . Bess' plan of warning the robber is now clear in her mind, and she waits only for the sound of his galloping horse. The "Tlot-tlot" of hoofbeats heard in the distance, together with the action described, culminates in the last line of the thirteenth stanza with "she warned him—with her death."

Stanzas 14 and 15 . . . These verses may be read as a unit, for they complete the action of the story—although the highwayman first turned and rode away from the inn, he boldly returned to meet his death.

Stanzas 16 and 17 . . . The italics emphasize the mystery of the legendary—the highwayman who still comes riding up to the old inn for his meeting with Bess, the landlord's daughter. Though he now rides in

ghostly form, he is still the same dashing highwayman as before. Pupils should be asked to point out the similarity between the last two stanzas of the poem and the first and third stanzas, noting that though the last two have an eerie and mysterious quality, the same gay, dashing spirit of the robber is present in both the beginning and the ending.

To bring out the fact that the sound of many of the words and phrases in the poem accents the action described, the teacher should read the passage "Over the cobbles he clattered and clashed" in such a way as to reveal the "clattery" sound of the words themselves. Then ask pupils to find other phrases in which the sound of the words accents their meaning; for example, "stable-wicket creaked," "many a sniggering jest," etc.

ORAL INTERPRETATION

The intensely dramatic nature of this ballad, coupled with the regularity of the rhythm, makes it desirable for the teacher to read the poem aloud to the class. In doing so, bring out the excitement and adventure of the story. Read it in as much of a storytelling fashion as possible.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 43.

Enjoying poetry . . . For further enjoyment of poetry, suggest "Barbara Allen," in *The American Songbag*; "A Song of Sherwood," by Alfred Noyes, in *Some British Ballads*; and "Ye Ballad of Ivan Petrofsky Skevar," in *American Ballads and Folk Songs*.

◀ PAGES 204-220 ▶

The Golden Cup of Kasimir

PREPARING FOR READING

The background note on page 492 suggests the setting and the mood of this story. Have pupils locate Poland on a map of Europe and encourage them to tell what they know of Poland's recent struggles. Then mention that in the thirteenth century A.D., a tribe of belligerent, half-civilized people known as the Tartars, led by Genghis Khan, swarmed up out of

Asia, invading countries in Eastern Europe, among them Poland. To establish further background, tell pupils that the story "The Golden Cup of Kasimir" concerns two young people of about their own age who risked their lives to save a precious possession of their native Poland.

EXTENDING INTERPRETATION

Lead into a discussion of the story by asking pupils what the Cup of Kasimir symbolized for Stefan and Elzbiotka and whether they were justified in risking their lives to save it. Bring out that these two young Polish people were motivated by a deep love of their country, symbolized by the Cup of Kasimir, and that their patriotism stimulated them to evidence a presence of mind and a quick-wittedness far beyond the ordinary capacity of a boy and girl of their years. Pupils should point out events in the story that illustrate these qualities.

The dramatic plot of the story will be highlighted by discussing with pupils the various moods they sensed in the story. The contrast between the mood of serene peace at the beginning followed by action and a feeling of uncertainty until the very end should encourage comments on how these contrasting moods contributed to the suspense and excitement.

The action of the story might be clarified by pointing out the writing technique the author employed to keep the reader informed concerning the simultaneous action of the various characters. Allowing pupils to skim pages 204-212 will enrich their responses to the following questions: "Do you think the people in the castle were expecting an invasion at any moment? Why or why not? What clues can you find to show that they felt that the danger had already passed them? What do you think the feeling of the people was elsewhere in Poland while Stefan, Elzbiotka, and the others were enjoying a quiet time inside the castle? As the Tartars were ascending the stairway of the castle, after gaining entrance, what was Elzbiotka doing? While Stefan and Stanislaus hurried to tell the Polish troops of the surprise attack, what was happening at the castle?"

Conclude discussion by asking, "Can you think of another story in this unit in which the unsuspecting characters were surprised?" Recall that the people of Pompeii, although forewarned, were caught completely by surprise when Vesuvius exploded. Then ask, "Which catastrophe do you think would be the most terrifying to the people who experienced it and why?"

EXTENDING SKILLS AND ABILITIES

Comprehending word and sentence meaning . . . In interpreting sentence meanings, the reader often mentally rephrases in his own words what the author has said. This may involve mentally substituting one word for another, changing words and transposing the order of others to simplify the language, or completely paraphrasing a sentence to express the ideas in familiar language patterns. (See pages 63-64 of this *GUIDEBOOK*.) This lesson is designed to give pupils practice in expressing clearly the ideas set forth by the author.

The teacher might present this exercise to the boys and girls by saying, "As we read, we often mentally rephrase in our own words what the author has said. We may just substitute one word for another or we may reword an entire sentence. For example, let's look on page 207 at the sentence 'Through the windows of stained glass streamed the colored rays, lighting the altar, lingering upon the silver eagle above it, and striking directly at this precious, gleaming chalice of finest, purest gold.' How might you tell what the author means in this sentence without using the word *chalice*?" If necessary, suggest that the members of the class find the word *chalice* in the Glossary or a dictionary and substitute the definition of the word in the context of the original sentence. Continue in the same manner with the passages below.

"There was much merrymaking, for when the master is away—well, the *scullion* boys will have their turn." (page 208)

"Then suddenly he drew his curved *scimitar* and strode across the room." (page 215)

"The Tartar, stretching his body over the *parapet*, his muscles *taut*, listened for the splash that would tell of the end of the brave leap." (page 216)

"The hoofs beat the ground like *flails* upon wheat." (page 218)

"The hair rose upon their heads at the strangeness of the *apparition* they saw." (page 219)

Think-and-Do Book . . . Use pages 44, 45, and 46-47.

EXTENDING INTERESTS

Preparing and presenting a radio play . . . The swift-moving action in "The Golden Cup of Kasimir" lends itself to adaptation for radio. If pupils are interested in preparing a radio play, suggest that members of the class begin by listing the scenes or parts of the story that

they think should be included. The list might be similar to the one which follows:

- I. Stefan and Elzbieta stand on the balcony and talk about spring and the Tartars.
- II. Stefan and Elzbieta visit the Cup of Kasimir in the chapel.
- III. Merrymaking goes on in the kitchen.
- IV. The Tartars take the castle.
- V. Stefan defies and escapes from Batu.
- VI. Stefan warns the Polish soldiers.
- VII. Elzbieta and the Cup of Kasimir are discovered in the kitchen.

It will be noted that such incidents as the arrival of mounted troops, the fighting between the Tartars and the guards, the ascension of the stairs, Stefan's fall into the lake and rescue by Stanislaus can all be dramatized largely by sound effects. Remind the boys and girls that the selection "Sound-Effects Man" (pages 134-139 in *PATHS AND PATHFINDERS*) contains many helpful suggestions for creating various sound effects and have pupils choose a sound-effects man as part of the cast. Encourage members of the class to use original conversation as well as conversation from the story and suggest that they have a narrator fill in the parts of the story which cannot be expressed by dialogue or by sound effects.

Extension reading . . . Two good books by Eric P. Kelly to recommend to the class are *The Land of the Polish People*, a brief history of Poland, and *From Star to Star*, a book about a young Roman nobleman in medieval Poland. A stirring story that boys and girls might also enjoy is *Bolek*, by Antoni Gronowicz.

EXTENDING THE UNIT THEME

Sharing stories and poems . . . One of the best ways to stimulate pupils to read independently is to provide abundant reading material which they will read for sheer enjoyment. It was with this goal in mind that the unit "Good Stories of Imagination" was planned. To build on this element of enjoyment, provide time for boys and girls to share with others any of the books, stories, or poems which they have been reading independently. Encourage the young people to do this in whatever fashion most appeals to them—they might prepare book posters or brief reviews of favorite books; or they might read aloud parts of interesting stories.

or books they have liked. If several pupils have read or enjoyed a particular book or story, they might work together to prepare a dramatization of the events in it. Since there may not be time for the reading of entire stories, pupils should be encouraged to select carefully and to prepare to read effectively passages that convey interesting information or that give a sampling of the spirit, style, or interest-provoking plot of a given selection. Boys and girls should also be invited to prepare a few introductory remarks to explain why they have chosen certain passages to read aloud.

Learning about modern authors . . . In presenting and sharing favorite books, stories, or poems, pupils may have chosen several by the same author, or other selections by authors of stories in the unit. Suggest to the young people that their selections may be even more interesting to them if they know something about the author and encourage the boys and girls to consult newspapers, magazines, and current literary publications for interesting facts about living authors. *Young Wings*, published by the Junior Literary Guild, often gives such information; similar materials may be found in the book sections of the *New York Herald Tribune*, *New York Times*, etc.; the *Junior Book of Authors* is another very interesting source for biographical sketches.

Creative expression . . . Love of reading often develops into a desire to express oneself through some form of art—writing, painting, caricaturing. A special bulletin-board display might be made in the classroom to feature pupils' original stories, poems, songs, original drawings, or paintings of book characters or scenes from favorite books. The teacher might mention, for example, that "Lochinvar" and "The Highwayman" are especially good poems for illustrating; or some of the boys and girls might try telling the story of Stefan and Elzbiетка's adventure in a poem.



Living in Other Lands

THIS UNIT . . . provides leads into a wealth of literature upon which we, as adults, should capitalize in helping young Americans acquire a sympathetic knowledge and understanding of other people. Ancient physical barriers—wide oceans and towering mountains—that long separated nation from nation have been obliterated by modern science and technology. But barriers of another kind still exist. Today, walls of prejudice and suspicion separate the human family into isolated clans. These walls will crumble only when individuals everywhere come to know and understand their fellow men the world over. Such intercultural understandings on the part of American boys and girls are fostered in "Living in Other Lands."

The unit will take the young people into ever-changing geographical and social settings. Among these are the fire-scorched veld of Northern Rhodesia, the narrow pastureland of rock-bound Iceland, the colorful island plains of Luzon, and, finally, the golden, wind-swept fields of Kansas, U. S. A. Many of these settings will appear strange and new, but appealing to American boys and girls. And some of the people the pupils will meet may, at first, seem "foreign." But in the end, boys and girls will discover that these "foreigners" are counterparts of themselves, with many of their own fears and hopes, their own likes and dislikes.

No American boy or girl could fail to share the fear of Hans from Northern Rhodesia as he flees the fire-swept veld. Even the more subtle fear that agitates Farmer Olafsson's Icelandic household—being corrupted by foreign customs—will be grasped by American youths who recall the reasons that impelled the Pilgrims to leave Holland. Certainly the attitude of the Luzon lad toward his big sister's suitor is identical with that of the familiar Penrod Schofield. The valor of the English boy who, in "Dunkirk," follows the great tradition of his national heroes, Nelson and Drake, will remind pupils of the heroism of American seamen and marines who have drawn inspiration from John Paul Jones or Farragut. Upper-grade boys and girls, enjoying these and other selections, should leave the unit with increased sensitivity and responsiveness to the character of other people.

INTRODUCING THE UNIT THEME

To introduce "Living in Other Lands" the teacher might have the pupils tell what foreign countries they heard mentioned on last night's radio newscast or read about in this morning's paper. Lead into a discussion of why our newspapers and radio commentators now supply us with so much news about foreign lands. Important ideas that should be developed include: modern inventions have brought us close to all parts of the world; no country can get along today without coöperating with other countries, for few if any countries have within their own borders the natural resources and industrial facilities needed in our complex world; it is far more important today than ever before that all nations be world-minded and friendly.

Suggest that pupils turn to the table of contents, page 4 of *WONDERS AND WORKERS*, look at the titles listed under "Living in Other Lands," and tell what places some of these titles suggest. For selections whose titles supply insufficient clues to the settings, suggest that the young people turn to the selections themselves and examine the illustrations. Time should be allowed for brief comments, based on previously acquired knowledge, on the various places that have been mentioned as well as the customs of the people who live there. Finally, encourage suggestions as to why the selection "America in My Blood" has been included in this group of stories and poems about *other* lands.

Mention that in these selections pupils will meet boys and girls who may speak different languages, live in houses different from theirs, wear different clothes, and eat different foods, but who are like their own friends in many ways. Encourage a discussion of why it is interesting and important to get acquainted with people who are seemingly different and how doing so might help the nations of the world become better friends. Guide the conversation to various means of developing such acquaintanceships: through reading stories and seeing movies about peoples of other countries; through listening to the music of foreign composers and seeing paintings by foreign artists; through traveling with open minds as well as with open eyes; through talking with people who have become Americans but who have stored up interesting memories of the countries of their origin.

Before beginning this unit the teacher should make a survey of slides, movies, and pictures that will help the class members visualize the settings of the various selections. She should also have on the reading table books and stories that will invite interest in extension and independent reading. (For a list of such books, see the back part of the *GUIDEBOOK* and the bibliography section for Unit V on page 522 of *WONDERS AND WORKERS*.) If they are available, the teacher should place such magazines as *United Nations World*, *Junior Red Cross Journal*, *Asia and the Americas*, *Travel*, *Holiday*, and *The National Geographic Magazine* on the library table. These magazines will help stimulate interest in foreign lands and in the people living throughout the world. While the unit is being studied, pupils should frequently be given time to browse among these books and magazines and choose any they wish to read independently.

Hosi the Lion

PREPARING FOR READING

Suggest that pupils read the background note on page 494. Then have them locate Northern Rhodesia and the Zambesi River on a wall map of Africa. Various members of the class should be given opportunity to tell what they already know about the region, and the teacher may supplement this information with such facts as: there are over a million natives of various African tribes in the country and only about 10,000 Europeans; most of the land is a high plateau where large numbers of lions, elephants, hippopotami, rhinoceros, giraffes, and many less familiar animals live.

Ask a class member to read aloud the first paragraph of the story on page 222. Encourage pupils to speculate briefly on what sort of adventure they think might have befallen Hans in this undeveloped country.

EXTENDING INTERPRETATION

A deviation from the procedure used in interpreting earlier stories is suggested for "Hosi the Lion." This suggested plan is designed to stimulate reflective thinking and reaction on the part of each individual pupil. However, if the teacher prefers to use the usual interpretative pattern, the suggestions given here may be readily adapted to fit it.

After pupils have read the story silently, distribute previously duplicated copies of the following questions or write the questions on the blackboard. Have the boys and girls read each question, think it over carefully, and decide what they might say about it during the general class discussion that will follow. About ten or fifteen minutes may be allowed for study of the questions; answers should *not* be written out, but class members may refer to the story if they wish to do so.

1. *What do you think the author means by the last sentence in the story?*
2. *What clues in the story tell you that Hans was familiar with the customs of the Zulus? How do you think Hans' feelings toward the Zulus changed after his experience?*

3. Why did Sa-M'Engli think that "Hosi the Lion" was a suitable name for Hans? What reasons do you have for agreeing or disagreeing with him?
4. Do you think Sa-M'Engli had any of the same qualities that he admired in Hans? Explain. Name at least one other quality that you admire in the African chieftain.
5. Think of two or three things you might tell a friend about this story if you were trying to persuade him to read it.

Question 1 is a broad, general one that will test pupils' ability to gain an overall view of the story and to summarize its main idea. If pupils reveal uncertainty about that idea, suggest that they read again the entire last paragraph so as to bring out Hans' modest pride in the new name that had been given him and, more important, to point up his feeling that Sa-M'Engli was a grand fellow whom he would like to know better. These are the things that are more important than collecting botanical specimens.

Questions 2, 3, and 4 deal more specifically with the qualities of Hans and Sa-M'Engli and should also bring out the fact that even though Hans was familiar with the customs of the Zulus, contact with the members of the group showed him that they were human and kind and that they possessed some of the same qualities he admired in his own friends.

Question 5 is designed to encourage pupils' reactions to the characters and to the events of the story as a whole.

To call attention to the author's use of foreshadowing, the teacher might begin by reading aloud the paragraph beginning at the bottom of page 225. Mention that even though this is the first time the author has said that the veld is on fire, trouble ahead has been hinted at several times. Then ask, "What details can you mention or locate in the story which gave you a clue to the coming forest fire?" Pupils should suggest the ominous clouds (page 223), the restless animals (page 223), the absence of guinea fowl or geese in their usual haunts (page 224), the trail of the Zulus and the signs of a hasty departure (page 225), the jagged black cloud (page 225).

EXTENDING SKILLS AND ABILITIES

Structural analysis . . . This lesson is designed to check pupils' ability to recognize derivatives and to identify the prefixes and suffixes which are added to root words to form derivatives. Ask members of the

class to skim the paragraph beginning on page 224 with "They realized uneasily . . ." and ending on page 225 with ". . . and before them surely there was game," and make a list of words to which prefixes and suffixes (or both) have been added. (Words ending in *-ed* or *-ing* should not be included.) At this point, the teacher might call attention to the fact that such words are called *derivatives* and explain that a derivative is a word formed by adding a prefix or suffix to another word. When the individual lists are complete, compile a class list on the blackboard by having pupils suggest the words they have included in their own lists. As each word is suggested, the boys and girls should identify it as a derivative by pointing out the root word and the prefix or suffix which has been added to the root word. Among the words to be included in the list are: *uneasily*, *protection*, *hastily*, *relative*, *possibility*, *exceptionally*, *loneliness*, *dangerous*, *possibly*, *hungry*, *silently*, *surely*. It should also be noted that in the words *exceptionally* and *loneliness*, more than one suffix has been added to each root word.

Organizing material . . . To give boys and girls practice in organizing material presented incidentally in the course of a story, have them first cite the clues which tell how Hans and his friends learned of the Zulus' haste. Then ask pupils to prove themselves as good at detective work as Hans was by organizing the scattered details the author mentions about Zulu life under such headings as "Customs," "Religion," "Food and Clothing," "Community Life." The suggestions which follow are given for the convenience of the teacher.

Customs

men waited on by women
etiquette strictly observed
warlike days of past symbolized
by boy's hairdress
knobkerries and poison darts
used in hunting

Religion

fetish house used for ancestor worship
chicken blood sacrificed to ancestors
advice asked of ancestors

Food and Clothing

calabashes used for cooking
mealie mush, dog, crocodile, python, goat used for food
knee bracelets worn by women

Community Life

homes arranged in kraals
cattle domesticated

Think-and-Do Book . . . Use pages 48 and 49.

EXTENDING INTERESTS

Planning an exhibit . . . Suggest that the class plan an exhibit of articles which are representative of handicrafts of other lands. Leather goods, linen, pottery, and other types of handicraft may be included. Each item should be labeled with a card telling the name of the owner, where the article came from, and any interesting notes about it. This exhibit should be kept and added to as the various unit selections are read.

Using reference materials . . . Pupils may be interested in learning more about the Zulus or other native tribes of South Africa and reporting on their findings to the class. As preparation for such reports, suggest the use of encyclopedias, geographies, and other reference materials.

Making a world map . . . Members of the class may enjoy tracing a large map of the world and drawing colored lines from their own town to the places referred to in the stories and poems included in this unit.

Extension reading . . . Call pupils' attention to the Bibliography on page 522 of *WONDERS AND WORKERS*. Other books in which pupils may be interested are: *Prester John*, by John Buchan; *Jock of the Bushveld*, by Sir James Percy Fitzpatrick; *Pepperfoot of Thursday Market*, by Robert Davis; and *Lion Boy: A Story of East Africa*, by Alden G. Stevens.

◀ PAGE 233 ▶

African Dance

PREPARING TO PRESENT THE POEM

"African Dance" is a poem of mood and rhythm, and there is no intellectual approach that will explain the cadences and haunting melody of this hypnotic study. The poem offers some difficult problems in timing and may require detailed study to master the subtle rhythm. One of the easiest ways for the teacher and pupils to sense the pulsing rhythm of the poem is actually to keep time with the beat of the tom-toms as this selection is read. This may be done by beating out the rhythm with open palms on the arm of a chair or on an opened book.

The teacher interested in verse choirs will find this poem admirably suited to such interpretation. Two choirs are needed, one of low voices to read the slow, rhythmic, drum-beating lines, and one of higher voices to catch the quicker, lighter mood of the girl's dance.

The following analysis of rhythm for "African Dance"¹ is suggested by May Hill Arbuthnot in *Children and Books*:

- low 1 ^{u i R i u u u i i R R} The low beating of the tom-toms,
 2 ^{u i R i u u u i i R R} The slow beating of the tom-toms,
 3 ^{i R R R i R R R} Low . . . slow
 4 ^{i R R R i R R R} Slow . . . low—
 5 ^{i R i R i R R R} Stirs your blood.
 High 6 ^{R R R R R R R i} Dance!
 7 ^{u i i i} A night-veiled girl
 8 ^{i i u i u u} Whirls softly into a
 9 ^{u u u i} Circle of light.
 10 ^{u i u R R i u R} Whirls softly . . . slowly,
 11 ^{u u i u i u i u i} Like a wisp of smoke around the fire—
 Low 12 ^{u u i i i} And the tom-toms beat,
 (baster)
 13 ^{u u i i i} And the tom-toms beat,
 14 ^{u u E R u u u u i i R R} And the low beating of the tom-toms
 All 15 ^{i R i R i R R R} Stirs your blood.

¹Reprinted from *The Dream Keeper*, by Langston Hughes, by permission of Alfred A. Knopf, Inc. Copyright, 1932, by Alfred A. Knopf, Inc.

In discussing the rhythm pattern of this poem, Mrs. Arbuthnot explains, "The easiest way to solve this timing is to mark the beat exactly as you would if you were drumming. The first two lines count eight in four-four time. The third and fourth lines count the same, which allows four counts for each word. The fifth line allows two counts for each word, with three silent beats at the end (RRR) or, as you would say it in music, three rests. The last verse, you will observe, is in broken syncopated time that is easily caught when you hear it read but is almost impossible to describe. The beat is marked. . . using the small mark for unaccented words or syllables, the large mark for accented words or syllables, and the symbol R for silent beats. The difficulty with this description is that the accents suggest a sledge-hammer emphasis and dragging beat which will spoil the poem. Remind the children, the moment they sound heavy, that this is a dance. The second verse is as soft and light as the veiled girl whirling 'like a wisp of smoke.' Only when you come to the beating tom-toms in the last five lines does the emphasis become deliberately forceful and increasingly rapid."

PRESENTATION AND ORAL INTERPRETATION

After the members of the class have read the background note on page 494 and have turned to the poem, ask what instrument they think would be used to accompany an African dance. Call attention to the visual pattern of the poem. Suggest that the very appearance of this selection indicates that it will give a rhythmical picture rather than tell a story.

Since the rhythm is such a vitally important element in the appreciation of this poem, the boys and girls should actually be able to feel the beat of the tom-toms. To facilitate such appreciation, tell each individual that he may use an open book or the arm of a chair as a drum. The teacher should then explain to the class members that she will read the poem aloud and that when they can hear the beat of the tom-toms, they may begin accompanying the reading by beating lightly on the open book or chair arm with the open palm. Caution the pupils that the music of the tom-toms must be kept light and soft. Several readings of the poem may be necessary before all members of the class sense its rhythm and timing.

After pupils have mastered the rhythm, the class might be divided into verse choirs, as mentioned in the teacher's preparation. The teacher who

does not wish to work out the details of a verse-choir interpretation may read all but the last four lines of the poem and ask pupils to join in on the last lines.

EXTENDING INTERESTS

Enjoying poetry . . . "Mexican Market Woman," in *Gaily We Parade*, and "The Negro Speaks of Rivers," in *Poems for Modern Youth*, both by Langston Hughes, may be enjoyed by pupils.

Poems which lend themselves to a rhythmical interpretation by the class include: "The Congo" and "The Santa Fé Trail—a Humoresque," by Vachel Lindsay; "The Cataract of Lodore," by Robert Southey; "The Bells," by Edgar Allan Poe, all in *Poems for Modern Youth*.

Listening to music . . . There are fine recordings of songs of the South-African veld and of African chant music that will give boys and girls a clearer understanding of African rhythm. If some of the young people have these records at home, they might bring them to school and play them for other members of the class.

Satisfying personal interests . . . Those pupils who are interested in folk dances might be referred to: *Invitation to Dance*, by Walter Terry; *Cowboy Dances*, by Lloyd Shaw; and *Dances of Our Pioneers*, collected by Grace L. Ryan, which tell interesting stories about and give directions for various dances. The American square dance, Hungarian and Norwegian folk dances, etc., also have characteristic music to accompany them.

◀ PAGES 234-247 ▶

Planes Fly East

PREPARING FOR READING

The background note on page 495 identifies the setting and suggests the mood of the story. After pupils have read the note, have them locate Iceland on a world map or globe, noting in particular its location in reference to the United States, Canada, Northern Ireland, and England. In

discussion bring out the importance of this island to both England and America in the Second World War and the feelings the Icelandic people must have had because of this.

EXTENDING INTERPRETATION

The plot of "Planes Fly East" is interesting and swift-moving, and the initial discussion should center on the main events of the story. To develop the idea that fears, unfounded rumors, and biased opinions can often mislead us, bring out how Farmer Olafsson felt about the Americans at first, and how this influenced his decision that Ragna was not to go to school as they had planned. Lead pupils into a brief discussion of Lieutenant Sam Smith, emphasizing the characteristics he possessed that made Farmer Olafsson and his family change their minds about Americans. Continue by asking pupils if they think that there were any Americans in Iceland who talked as Neighbor Arngrim reported they did. Point up the idea that even though there might have been some soldiers who spoke disparagingly of Iceland and the people there, Farmer Olafsson was wrong in judging the entire group of soldiers on that basis.

Discussion of the ideas in the last paragraph on page 247 may provide an opportunity to elicit opinions as to whether or not picking up "foreign ideas" is bad. Call attention to the fact that much of our life in America is based on "foreign ideas" and then suggest that pupils name countries from which we have borrowed various foods, Christmas customs, styles of architecture, political institutions, words or phrases, etc. During this discussion, make certain that the boys and girls mention the American words which trace back to the Old Norse words, as listed on page 245 of *WONDERS AND WORKERS*.

After mentioning the American words that can be traced back to the Old Norse language, ask the members of the class what evidence presented in the story would lead them to infer that Iceland was a civilized country centuries before America was settled by white men. Highlight such things as Erik the Red and Leif the Lucky's exploratory voyages, the derivation of words from the Old Norse language, etc. Center further discussion around the facts mentioned in the selections which show that Iceland has a well-developed and highly advanced civilization today. In responding, pupils should draw on the information concerning the

Farmers' Cooperatives, preparatory schools, etc., given in the Help Yourself notes as well as on the ideas gained from reading the story. In addition, they might compare American life and its traditions with life in Iceland to see if they can find institutions and activities that are comparable.

EXTENDING SKILLS AND ABILITIES

Extending vocabulary . . . It is too often the case in our speaking and writing vocabularies that a few words are overworked and more effective words go unused. To develop more variety in the language pattern of the boys and girls, write the word *big* on the blackboard and ask pupils to suggest other words that carry the idea of bigness in size. After members of the class have mentioned such words as *huge*, *large*, *gigantic*, *enormous*, *mammoth*, *colossal*, *massive*, tell pupils that these words are *synonyms* for the word *big* and explain that a synonym is a word that means the same or nearly the same as another word. Then write the following sentences on the blackboard:

There was a *big* pile of stones near the unfinished building.
There was a *huge* pile of stones near the unfinished building.

Encourage pupils to tell if the words *big* and *huge*, as used in these sentences, make them see the same picture or if the words have some difference in meaning. In discussing this, make sure that members of the class point out that both words carry the idea of bigness, even though in varying degrees. Then have the boys and girls use the other synonyms for *big* in oral sentences, following this same general procedure.

Mention that in describing an event, scene, or character, authors select words that will give the reader a clear and exact picture of the thing or person being described. Write on the blackboard the first paragraph of the story "Planes Fly East" on page 234 and underline the words *gigantic*, *angry*, *terror*, *scattered*, *plunging*, *tumbled*, *bleating*. Encourage the members of the class to think of synonyms that might be substituted for the underlined words; then write these synonyms above the underlined words. Have the paragraph read aloud and discuss in which cases the suggested synonyms might have been just as effective and in which cases the word used by the author contributes more to the meaning and effectiveness of the sentence.

Locating information . . . This lesson is designed to promote the ability to locate information which extends that given in a specific selection and to develop skill in the use of the encyclopedia. Mention that in the story "Planes Fly East," reference is made to Icelandic surnames and how they differ from the names we use in America. Call attention to these sentences on page 240: "They make fun of our names because we don't title ourselves Mr. Black and Mrs. White, or call the whole family Black or White as they do. They'd laugh at your being named Ragna Egvyndsdottir while your brother is called Olaf Egvyndsson." Lead class members to infer how the surnames of the sons and daughters in Icelandic families are formed and to speculate on the historical source of such names as Black and White. Then ask the boys and girls where they would look to find out about the origin of names and how they would go about getting such information. Pupils should point out that such information might be found in encyclopedias under the key word *names*. Ask several members of the class to look up this information and report on it.

Think-and-Do Book . . . Use pages 50, 51, and 52. Page 52 of the THINK-AND-DO BOOK gives some interesting details about the government of the world's oldest republic.

EXTENDING INTERESTS

Satisfying personal interests . . . *The National Geographic Magazine* for July 1941 contains a very interesting series of pictures showing soldiers and citizens in Iceland at the time the events in "Planes Fly East" occurred. The issue of the same magazine for November 1945 also has an article and pictures of Iceland. Pupils may enjoy dipping into *Around the Year in Iceland*, by Elizabeth Yates, a well-illustrated and easily read book.

Extension reading . . . Recommended books which boys and girls will enjoy reading are: *Dragon Prows Westward*, by William H. Bunce, and *The Coming of the Dragon Ships*, by Florence and Howard Everson, which are stories based on the great days of the Vikings; *Quest in the Northland*, by Elizabeth Yates; *Smoky Bay* and *Golden Hair*, by Steingrímur Arason, which are modern in setting.

Dunkirk

PREPARING TO PRESENT THE POEM

Robert Nathan's poem tells the spirited and inspiring story of two courageous English children who participated in the evacuation of British soldiers from shell-torn Dunkirk on June 3, 1940. The poem, so moving to young readers as a narrative, merits a detailed interpretation of its ideas after boys and girls have read the poem silently to follow the thrilling story. Suggestions for guiding such interpretation are given in the next step of the lesson plan.

Preparatory to presenting the poem, the teacher may find the following points helpful in making a survey of the ideas necessary to a rich interpretation of the poem—ideas that are for the most part implied but not directly stated. The opening lines make clear what Will and Bess have been thinking of: Will, knowing of the defeat at Dunkirk, has been planning carefully; he is ready to start. Bess, coming home from school, instantly senses the serious purpose back of his intended voyage. She knows about Dunkirk; she knows what Will is up to. She is going, too! The absence of talk between the two children implies their basic character—there is no thought of their own safety, no noble words; there is just dogged determination to act, to drive straight into the peril. Implicit in the entire poem is the children's ancient inheritance: the English traditions of naval supremacy; intrepid admirals snatching victory from defeat; the English army protecting the far-flung empire. But now the army faces annihilation.

The reader of the poem will grasp the stupendous problem—men must be snatched from death, not by the great admirals of the navy but by "little men," even by children like Will and Bess who have a natural-born instinct for seacraft. The reader will recall, too, that every English child is bred on stories of the two greatest of all naval heroes—Nelson and Drake. These two men mean to an English child what Washington and Lincoln mean to Americans. Standing at Valley Forge, we almost feel Washington beside us; at Gettysburg, we can sense Lincoln's presence.

Exactly in this same manner do Will and Bess feel their great heroes beside them. Will prays and prays, and finally his prayers are answered. The fog comes down, Drake's drum rolls, and the *Sarah* is brought safely to harbor.

PRESENTATION AND ORAL INTERPRETATION

After pupils have read the background note, allow time for various members of the class to tell what they know about Dunkirk. Call attention to the reference to Nelson and Drake in the background note and bring out the fact that these two men—long dead—symbolize the indomitable spirit and courage of the English Navy. Then, before asking pupils to read the entire poem silently, the teacher might give explanations of the following words: *leech* (edge of a sail not fastened to a rope or spar), *pennoncel* (a long narrow flag or streamer), *galleon* (a high ship of three or four decks used at the time of the defeat of the Spanish Armada), *frigate* (a three-masted sailing warship used in the Napoleonic Wars), *brigantine* (a two-masted ship), *harbor key* (a low island or reef), *stays* (strong ropes which support the mast of a ship), *conned* (watched the course and directed the helmsman how to steer), *wake* (track left behind a moving ship).

Following the silent reading, initiate discussion of the story that this poem tells. Lead boys and girls to understand that many English people have always had a feeling for ships and the sea. Bring in the traditions of the English Navy—how England has always brought its men home by sea, usually in victory, but now in defeat. Be sure pupils note that the children had no thoughts for themselves or their own safety, that their desire to bring back their countrymen was the compelling motive behind the rescue. Members of the class should also discuss which part of the journey they think required the most courage and whether Will could have accomplished his mission without the help of Bess. This general discussion might be concluded with such comments as: "The rescue of the soldiers from Dunkirk by a fleet of little boats really happened, but Will and Bess are imaginary characters. Have you read about or do you know of any real boys and girls who have done anything as brave as Will and Bess did to help their country?"

The detailed interpretation of the story might be started by asking which of the two children had thought the longest about the plan that

was later carried out by both of them. Point out that the plan was in Will's mind as he stood looking down at the gray-green water and out to sea. Then have pupils point out the place in the poem where the poet first says what Will was thinking, thereby giving the reader a hint of Will's plan. ("He said, 'For a good long sail.' . . . 'I may be gone for a night and a day.'") Emphasize that although Will had the plan originally, Bess knew about the tragedy at Dunkirk and immediately wanted to go with Will and help him. Have the class note the seemingly perfect understanding that the children had for each other and the few words they used to discuss and develop their plan. At this time, the teacher might well develop an understanding of their reserve, which called for no heroics or noble words—just quiet action and complete devotion to the task at hand.

In the discussion of the sail back to England, highlight Bess and Will's moral courage, which was supplemented by their knowledge of the traditions of England's naval heroes, Nelson and Drake. Then ask such questions as: "Was Francis Drake really steering Will's boat? Did Nelson in the *Victory* really escort the small boats out of the harbor? If the 'old dead Captains' did not actually accompany the rescuers, in what way were they with Will and Bess?" So that pupils may understand this more clearly, bring out the feeling that American boys and girls have toward Washington and Lincoln, or other great American heroes. Invite comment on how the members of the class would feel if they were at Mount Vernon, Valley Forge, or Gettysburg, and emphasize that Washington and Lincoln actually seem near us when we visit their homes or their battlegrounds. Next, discuss the last section of the poem, centering attention on how Will prayed and prayed and how his prayers were finally answered when the fog came down. Then read the lines "There at his side sat Francis Drake, And held him true and steered him home" to bring out again how Will's love of England and his belief in England helped him reach the safety of the harbor. Boys and girls might now reread the poem, keeping these various interpretive details in mind as they do so.

Call attention to the visual pattern of the poem and ask pupils if just looking at the poem gives them an indication of whether or not it is a story poem. The boys and girls might then compare the visual pattern with that of "African Dance."

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 53.

Enjoying poetry . . . Pupils may enjoy "Bells in the Country," by Robert Nathan, or "The Hands-Across-the-Sea Poem," by John Collings Squire, both in *The Home Book of Modern Verse*. Another appropriate poem is "Drake's Drum," by Henry Newbolt, in *The Home Book of Verse*. The phonograph recording of Lynn Fontanne's reading of "The White Cliffs of Dover," by Alice Duer Miller, is also popular with young people.

◀ PAGES 253-262 ▶

God Was Good to Luzon

PREPARING FOR READING

In informal conversation encourage pupils to contribute any information they may have about the Philippine Islands. Have this group of islands located on a wall map and the Island of Luzon pointed out. Reading of the background note on page 497 will furnish an excellent lead into the silent reading of the story.

EXTENDING INTERPRETATION

Since this particular episode in Manuel's life centers mainly around Basilio, encourage the boys and girls to give their opinions as to why Manuel disliked Basilio. Then continue with such questions as: "What was the father's feeling toward Basilio? How did Manuel's mother look upon him? What did Manuel mean when he said, 'And then I knew that Basilio had a champion at last?'"

Suggest that pupils pick out words in the story that indicate that the action does not take place in the United States. They should refer to the Help Yourself notes for the pronunciation of these words and for their meanings. When boys and girls mention *Apong Lacay*, have them explain what it means and then ask, "What idea does this give you about Filipino family life?"

Direct further attention to Grandpa by asking the young people to cite some of the things that made him such an interesting companion. After pupils have mentioned some of his characteristics, point up the fact that the selection takes its title from a remark of Grandpa's and ask pupils what he meant when he said, "'God is good to Luzon.'"

An interesting comparison might next be made between Manuel's life and the lives of young Americans. Begin the discussion by asking, "If you had grown up in the Philippines as Manuel did, what would you have enjoyed most?" When several answers have been given, continue with the following questions: "What things about Manuel's life seem very different from the way you live? For example, how was his food different from yours?" A number of other differences between Manuel's and a young American's life might also be pointed out—how stools were used in Manuel's house instead of chairs, how his sister wove and sewed her own clothes, etc. It might be wise to bring out the reason for some of these differences. The discussion should then center about a question that will bring out the ways in which Manuel acted like many American boys—he was always hungry, he loved to catch fish but preferred to have someone else do the heavy work, he despised the way his sister and Basilio made "moon-eyes" at one another, and he was a bit jealous when his mother cooked his favorite soup for someone else. Such a discussion will help pupils conclude that people may differ in customs and ways of living—but that human nature is much the same the world over.

Before concluding the discussion of this selection, say, "If this story had not been written by a Filipino, probably many things about it would have been different. What details of the story do you think would have been omitted if it had been written by someone who had never visited the Philippines or by someone who had only visited there as a tourist?" Lead the boys and girls to see that the Philippine legends, the native cooking, the details of how the people live might have been lacking had a visitor written the story.

EXTENDING SKILLS AND ABILITIES

Evaluating ideas . . . The following procedures are designed to promote the ability to evaluate the validity of generalizations and to develop an awareness of the need for sufficient evidence as a basis for drawing sound conclusions.

Lead pupils to recall the story "Shiny Pants" in Unit I of **WONDERS AND WORKERS**. Then say, "Suppose the children in a Philippine school read this story. If that were the only story they had ever read about life in the United States, they might get some ideas about our country that would not be entirely correct. They might believe, for example, that most people of the United States live on ranches." Ask pupils to give other incorrect ideas that Filipino children might get if they read only "Shiny Pants." Lead the boys and girls to evaluate the accuracy of each idea selected. Ideas such as the following might be volunteered:

*All towns west of the Mississippi have an annual rodeo.
All girls in the United States are excellent horseback riders.*

As pupils evaluate the correctness of such statements, develop the idea that the statements to be even partially true must be limited to a particular section of the United States. Then lead them to see that the statements would have to be changed somewhat to be true about even one section of our country.

Develop the idea with pupils that they, too, may get wrong or incomplete ideas of life in another country by reading only one or two stories or articles about that country. Have the boys and girls skim the story "God Was Good to Luzon" and make their own lists of generalizations about life in the Philippine Islands. The individual lists might contain some of the following ideas:

Most Filipino boys receive a good education in boarding schools.

In the Philippine Islands food grows easily.

Food is grown principally on the level land which makes up most of the islands.

The average Filipino has an abundance of fine food to eat.

Rice and sugar cane are important crops.

Carabao are used for plowing on all the islands.

The Filipinos are an educated and prosperous people.

In the discussion of pupils' ideas, emphasize that though they may or may not be true, one story does not provide sufficient information or evidence to enable us to decide whether or not they are accurate—and that we must use care in forming opinions about people just from our limited reading about them. Ask, "Where would you go to get information about the Philippines? What might give you more detailed and accurate information, storybooks or reference books? Why? Which might help

you feel that you were really becoming acquainted with the people of the country?" To conclude this exercise, suggest that the boys and girls refer to encyclopedias and other reference books to check their generalizations.

Using a pronunciation key . . . Several unfamiliar proper names are used in this story, thus providing excellent opportunity for the teacher to focus attention on using the Pronunciation of Proper Names section in *WONDERS AND WORKERS*.

First list the following names from the story on the blackboard: *Tagudin, Basilio, Indonesian, Sanskrit, Juan, Pedlo, Federico, Dominga*. Call on one member of the class to pronounce the first name in the list without referring to the section on the Pronunciation of Proper Names. Ask the other pupils to find this name on page 542 and check the pronunciation just given. Continue with the other names in the list.

Think-and-Do Book . . . Use pages 54-55 and 56. Page 56 of the *THINK-AND-DO BOOK* presents four old folk tales which have been told and retold by generations of Philippine people.

EXTENDING INTERESTS

Creative expression . . . Pupils have probably had their interest aroused by the story of Dominga and Basilio. Suggest that they write or tell another episode concerning these two characters. The teacher might initiate the project by saying, "You remember that Manuel tells us that Basilio now has a champion, Grandpa himself. What do you think Grandpa will do to help Basilio? Do you think the father still objects to Basilio? How do you think Dominga herself feels? What do you think will happen next?" When pupils have written their stories, allow time for some of these to be read aloud to the class.

Using reference materials . . . Members of the class who are interested in recent history and current affairs should be encouraged to report to the class on the part the Philippines played in the Second World War and the progress of the islands as an independent nation. Pupils should be directed to the *Readers' Guide to Periodical Literature* for up-to-date material on the subject. For aspects of life on the islands, *Ocean Outposts*, by Helen Follett, pages 36-77, and *Dutch East Indies and the Philippines*, by Cateau De Leeuw, are valuable.

America in My Blood

PREPARING FOR READING

The teacher will find that the background note on page 498 and the first Help Yourself note for this selection will adequately introduce the setting of this article and will give information about the native country of the author. After the boys and girls have read these notes, locate Turkey on a wall map and encourage discussion on what the pupils think a person from another land would have to do if he wanted to understand what it means to be an American.

EXTENDING INTERPRETATION

After the silent reading, ask pupils to tell what being an American meant to Surmelian. Boys and girls should bring out the fact that it was the feeling he had for the earth that made Surmelian feel he belonged in America. The teacher might then expand this discussion by commenting, "Surmelian first felt the spirit of America when he was working on a Kansas farm. What might give a city dweller from another land this feeling of being at home in America?" Through their responses, lead pupils to see that for every individual, the essence of America expresses itself in a different way, but that the great shops and factories of a city, the broad expanses of the farms, the schools and churches, stories of American history, etc., all contribute to giving a stranger the feeling of what America is.

Then continue with: "What does Surmelian mean when he says that 'taking out first and second papers of citizenship, and swearing allegiance to the Constitution' are comparatively unimportant?" Point up the idea that without an understanding of the heart of America, these things are mere forms and have no real value.

Focus attention next on farm life in Kansas and on Surmelian's reactions to it. Question the boys and girls as to what they think Surmelian expected a Kansas farm to be like. Skimming the article at this point might facilitate the pupils' ability to contribute to this discussion. Suggest that

the young people point out some of the differences that Surmelian first noticed and then encourage pupils to comment on how, at the close of the selection, he found that many of the things that he loved and always remembered about farm life in Armenia were very much the same in America.

Questions similar to the following will help to bring out what Surmelian, as a foreigner, had to offer his American friends. "Did Surmelian contribute something to the Schultz family other than the work he did on their farm? What types of things did he contribute to their knowledge and understanding?" Continue by having pupils point out how Surmelian's stay on the Schultz farm changed his attitude and beliefs about American farmers and farm life.

Then ask the members of the class, "What is your explanation of how a selection with the title 'America in My Blood' fits into a unit on 'Living in Other Lands?'" Lead the boys and girls to see that just as the stories "Planes Fly East" and "God Was Good to Luzon" gave them a glimpse into foreign ideas and ways of living, so "America in My Blood" gives them information on how farmers in another land live and act and also tells them what a stranger in America thinks about the American way of life.

EXTENDING SKILLS AND ABILITIES

Organization and retention of ideas . . . Many of the facts and ideas encountered in reading will not be remembered or put to any use if they are not incorporated into a related body of facts. To aid pupils in organizing some of the information presented in the unit "Living in Other Lands," the teacher might write the names of the various countries mentioned in this unit at the head of separate columns on the blackboard. Then ask pupils to name some of the things that they want to remember about the lands and the people living in these lands. They should include information gained from extension and independent reading as well as from their reading of the selections in the text. As the boys and girls offer their various suggestions, these should be discussed, summarized briefly, and then written on the blackboard in the proper column. If the teacher wishes, and if time permits, this collected information might also be organized in much the same manner as suggested on page 146 of this GUIDEBOOK.

As an extension of this, pupils might be encouraged to tell of some of the contributions these countries have made to life in America. When these are listed on the blackboard, contributions from lands other than those discussed in the unit itself might be added; e.g., styles of architecture from such countries as England; holiday customs such as the Christmas tree from Germany; etc. Conclude the discussion with such comments as: "People in various lands may eat differently, dress differently, have different kinds of homes, and follow different customs; but their ways of living are as natural to them as ours are to us. People of other lands have brought with them to America a rich store of customs and traditions, words and phrases, thoughts and beliefs, which have enriched American life and, as the years have passed, have become an accepted part of it. Almost every country has made a contribution to the cultures of other countries and in return has incorporated many of the ways and ideas of other lands into its own way of living."

Think-and-Do Book . . . Use pages 57, 58, and 59. Some of the contributions which other lands and people from those lands have made to the American way of life are given on page 57 of the THINK-AND-DO BOOK.

EXTENDING INTERESTS

Expressing ideas . . . In the last three paragraphs of the story, Sumclian tells what America means to him. In connection with this, pupils should be encouraged to write briefly, in either verse or prose, the things they think of when they say "My Country."

Extension reading . . . *Our Foreign-Born Citizens*, by Annie E. S. Beard, contains interesting accounts of immigrants who have become worthy Americans. *Myself When Young; A Boy in Persia*, by Youel B. Mirza; and *The Enchanted Past*, by Jeannette R. Hodgdon, are concerned with life in the Near East. Another book that the teacher might suggest for pupils' reading is *You and the United Nations*, by Lois Fisher. It is an excellent book and should inspire much comment and interest.

Besides those mentioned above, there are several books which try, through pictures, to describe America, what Americans are like, how Americans look and act. Boys and girls might be interested in reading: *Look at America*, by the editors of *Look* magazine, and *Say, Is This the U. S. A.* by Erskine Caldwell and Margaret Bourke-White.

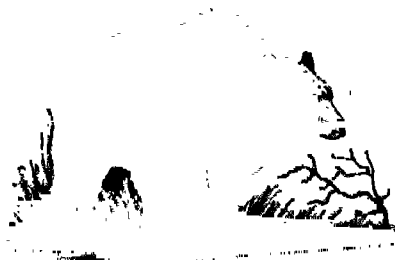
EXTENDING THE UNIT THEME

Charting flying time . . . To impress pupils with the way in which modern methods of transportation have brought the countries of the world closer together, suggest that individual boys and girls be appointed to find the flying time to each of the places in which the action of a selection studied in this unit takes place. The time should be entered on the world map which the members of the class have traced. (See page 147 of this *GUIDEBOOK*.) Place the time in hours on the lines connecting the pupils' home town with each foreign country.

Gathering tales from foreign lands . . . Suggest that pupils ask parents, grandparents, friends, and neighbors who have lived in foreign lands to tell them about the customs or people of these countries. The teacher might set aside a class period to give pupils an opportunity to tell the things they have learned.

Sharing reading experiences . . . Encourage pupils to tell the class about books they have read during the study of this unit which deal with foreign countries. Suggest that the listeners write down the names of books that sound particularly interesting so that they will have their own private list of stories they want to read.

Corresponding with children in other lands . . . Writing to boys and girls in other countries will give pupils an opportunity to know their world neighbors personally. In doing this, they will learn that these boys and girls are basically very much like themselves. The names of children in other countries may be obtained from newspapers, magazines, or agencies which give special attention to this service.



The Outdoor World

EACH SELECTION . . . in this unit emphasizes an important, absorbing interest of human beings—there are mysteries to be solved by sleuths, challenges to man's spirit of daring, struggles for wresting a living from the "good earth." For two high-school boys there is the challenge offered to their woodcraft by the wily skill of a giant deer protecting the secret of his hideaway. For a nature detective like Raymond Ditmars there are the thrills of tracking down animal clues for the fascinating information these clues supply. For a young boy who loved a hunt, there is an exciting adventure of stalking a bear that results in a growing knowledge of the ways of animals—and of human beings. For a courageous priest and his wonder-working pilot, there is the satisfaction of defying the dangers of unexplored territory as they land a plane inside a volcano.

Quieter adventures are found in the poems of the unit, and here the reader's attention is focused on some of the moods and feelings connected with the world of nature. The poet-authors have captured the watchful quiet of a mother deer protecting her fawn, the pain of the rabbit caught in the snare, the youthful love of nature found in "The Pasture," the wildness of even domesticated animals in "On a Night of Snow," and the lure of the open spaces felt in "A Vagabond Song."

INTRODUCING THE UNIT THEME

In introducing the unit theme, mention that the authors of the selections which pupils are to read were obviously interested in the outdoor world and have filled their stories with people who are also interested in the habits, the oddities, and the interesting details about animals and their surroundings.

The teacher might then ask boys and girls such questions as: "What are the things in the outdoor world that interest you? How could these interests become your hobbies as well?" In this conversation, bring out the fact that an interest in birds can be supplemented by collecting bird pictures or by photographing birds with color films; an interest in flowers can be heightened by pressing these flowers to keep their shape and tinting them to help retain their natural color; an interest in sea shells can be turned into a hobby of making necklaces and bracelets out of these shells; an interest in airplanes might grow into an interest in model-airplane building; etc.

Before initiating the reading of the selections in this unit, "The Outdoor World," the teacher should make a survey of slides, movies, or pictures that will be useful in helping pupils visualize the settings of the various stories. She should also make available copies of such magazines as: *Audubon Magazine*, *Nature Magazine*, *Natural History*, *The Junior Natural History Magazine*, and *The National Geographic Magazine*. In addition to magazines, books suitable for extension reading should be assembled. For a list of such books see the back part of this *GUIDEBOOK* and page 522 of *WONDERS AND WORKERS*. Encourage the boys and girls in the class to bring in books from home or from the public library to add to the collection of stories about adventures in the outdoor world.

Fawn's First Journey

In the opening selection of this unit the poet has given the reader a momentary glimpse of two forest creatures in the half light of early dawn. The beginning words of the first and last stanzas—"Softly comes" and "Softly steps"—suggest the mood and tone of the entire poem. The descriptive words and phrases, with their undertones of quietness and cautiousness, amplify the beauty of the scene pictured by the poet. The author has made no attempt to give a detailed word picture of forest life, nor do the lines of the poem have a pronounced rhythm. This is a quiet poem to be read and enjoyed silently or read orally in a soft voice.

PRESENTING AND INTERPRETING THE POEM

Have pupils read the background note on page 499 and then the poem itself silently. After the silent reading, ask the boys and girls to tell why they think the poet wrote this poem—what picture she was trying to draw or what feeling she was trying to leave with the readers. Two ideas should be stressed in the discussion: (1) the poet has not tried to give a detailed description of forest life but only a word picture of two wild creatures as they go cautiously through the forest; (2) the poet gives us a feeling that we, too, are *in* the forest, quietly watching the doe and her fawn.

The more detailed discussion of the poem should highlight its three divisions: (1) in the beginning stanza the doe appears with the fawn following close behind her; (2) in the second and third stanzas the doe's wariness is emphasized as she samples the morning winds, listens for warning sounds, and looks searchingly about for hints of danger; (3) in the last stanza, the doe, satisfied that the way is safe, moves quietly along the shadowed stream, with the fawn beside her.

ORAL INTERPRETATION

The teacher should read the entire poem aloud to set the auditory pattern. Then, since most pupils will enjoy the quiet cadence of the words and the picture they call to mind, several class members may take turns reading the entire selection aloud.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 60.

Enjoying poetry . . . "Child's Song," by Thomas Moore, in *Sung Under the Silver Umbrella*, may be recommended for boys' and girls' independent reading. Slower readers, especially, might enjoy the easy, interesting reading and delightful illustrations in *Dash and Dart*, by Mary and Conrad Buff, which presents in poetic form the story of the first year in the life of two fawns.

Throughout this unit, pupils should be encouraged to browse through good anthologies of poetry and to share their own favorites with the rest of the class.

At this time members of the class might like to start an anthology in scrapbook form of favorite animal poems. A committee might be selected to judge the value of contributions and to see that the selections are placed in the class book. The anthology should be placed on the library table, so that all may have access to it for leisure-time reading.

◀ PAGES 273-284 ▶

Old Scar-Back

PREPARING FOR READING

Reading the background note will introduce pupils to the problem that was confronting the two boys at the beginning of this story. Before the silent reading of the selection, ask various members of the class to speculate on why they think Breck Townsend and Sam McArdle might have been determined to get a picture of Old Scar-Back.

EXTENDING INTERPRETATION

Many upper-grade pupils can read a story rapidly, grasp the general idea, and recount the main events or summarize the plot; yet some of these same boys and girls may miss many of the significant details and hence fail to grasp important implications made by the author. The suggestions in this lesson plan provide for extending pupils' interpretation in two

ways—by inviting them to express and share with their classmates their reactions to the story as a whole and by stimulating them to recall and to reread for significant details.

Discussion based on the following group of questions will center about the idea of "hunting" with a camera instead of with a gun. Pupils' own reactions to the two types of hunting may vary, but there should be no question as to how Sam and Breck felt about the relative merits of the two sports. "What makes you think that Breck and Sam got more thrill out of shooting Old Scar-Back with a camera than they would have out of shooting him with a gun? Can you find specific statements in the story that reveal how Breck and Sam felt about the fun of camera hunting? [See the first paragraph, page 281.] Which do you think would require the greater skill—to hunt Scar-Back with a gun or to get a good 'close-up' picture of him? Why?"

The personal qualities of the two leading characters as well as the author's method of characterization may be brought out by discussion based on the following questions: "What incidents or statements in the story make you know that Sam and Breck had keen powers of observation? What incidents or statements show that they were persistent and did not give up easily? That they cooperated with each other? Why were all three of these qualities essential to the 'capture' of Scar-Back? Do you think you would enjoy spending a vacation in New Hampshire with Breck and Sam? Why or why not?"

Consideration of the author's purpose and his viewpoint may be stimulated by inviting pupils' responses (and reasons for their opinions) to the following questions: "Do you think this story, taken from Stephen Meader's book *King of the Hills*, reveals that he was more interested in writing an exciting adventure story that would interest the reader than he was in giving specific information about the outdoor world? Does the author want the reader to feel that spending a vacation with Breck and Sam would be fun? How well does he succeed in making you feel that you would enjoy such a vacation? Do you think Stephen Meader believes that amateur photography is a fascinating and worth-while hobby? Do you agree with him?" At the conclusion of the discussion, the teacher might suggest that boys and girls read *King of the Hills* if they have enjoyed "Old Scar-Back" and if they would like to share other adventures of Breck Townsend and Sam McArdle.

EXTENDING SKILLS AND ABILITIES

Noting significant details . . . To foster the habit of noting significant details in a selection, mention that Sam and Breck were good detectives—they observed and used many clues that helped them get their picture. Then ask pupils to tell what inferences Breck and Sam made from their observation of each of the facts listed below. The first four items are based on information given in the text; the last three, on information given in the Help Yourself notes. If there are questions or differences of opinion, pupils should be asked to turn to the story (or the Help Yourself notes) and find evidence to support their conclusions.

1. Several deer trails leading from different directions converged at one spot.
2. There was a groove in the snow on top of a big log near the hemlock thicket.
3. There were no deer tracks on the north side of the thicket.
4. The whole thicket was not more than fifty yards across.
5. The wind was from the same direction as the entrance to the thicket.
6. The bark was stripped from the birch trees around the inside of the yard.
7. Old Scar-Back had more than ten points.

Think-and-Do Book . . . Use pages 61, 62, and 63.

EXTENDING INTERESTS

Collecting pictures . . . Encourage pupils to collect for the bulletin-board display interesting pictures that camera hunters have taken of animals. Newspapers and magazines will furnish excellent sources for such pictures. Animal pictures which pupils themselves have taken might also be added to the display.

If any class members are especially interested in photography, time might be allotted for short talks or demonstrations of their hobby. A camera with a flash bulb might also be shown and explained, since one of this type is used by the two boys in "Old Scar-Back."

Extension reading . . . Suggested books for upper-grade readers are: *Carcajou*, by Rutherford Montgomery; *Biography of a Grizzly*, by Ernest T. Seton; *My Life with Animals*, by George F. Morse. The article "Lions I Have Photographed," by Martin Johnson, in *The Boy Scouts Book of Outdoor Hobbies*, also deals with picture hunting.

The Snare

In this poem about a rabbit caught in a snare, the poet, James Stephens, expresses the emotional tension and the urge to help that grips almost everyone on hearing a sudden frightened cry—a startling cry of pain.

The underlying idea of the selection sets the tone of the poem, and the simple wording and cumulative style pattern carry the reader along with the poet's mood. The repetition of lines intensifies the idea expressed, making each stanza more poignant and more moving until the climax is reached with the urgent promise of the last two lines—"Little one! Oh, little one! I am searching everywhere."

PRESENTING AND INTERPRETING THE POEM

The teacher might set the mood by explaining that in "The Snare," James Stephens tells of hearing a rabbit's frightened cries—a rabbit caught in a trap—and of the poet's almost frantic efforts to find and free the small animal. (The rabbit is one of the few animals which make no sound except in pain.) Pupils may then be asked to read the poem silently. If, after the reading, members of the class express a desire to comment on their reactions to the poem, encourage them to do so. However, those pupils who feel the poem most deeply will probably remain quiet.

In discussing the selection, highlight the pattern of presentation that Mr. Stephens uses by asking pupils to tell what device the poet employs to make each stanza more appealing and more moving than the preceding one. (Each stanza ends with a line that is repeated as the beginning line of the succeeding stanza—with an ever-growing development of the poet's idea.) Then encourage pupils to tell just how the main idea of the poem is further developed in each stanza until the climax. Point up the climax in the last two lines, making sure that the boys and girls note the urgent, moving promise that these lines embody.

Call attention to the poem "Four Little Foxes," by Lew Sarett, page 294 in *PATHS AND PATHFINDERS*, and invite comparison of these two selections. If members of the class are not familiar with "Four Little Foxes," the teacher may wish to read it aloud.

ORAL INTERPRETATION

In oral interpretation suggest that the reader show by his tone of voice the growing tension of each stanza—climaxed in the last two lines. Caution pupils to express the urgency of the poet's desire to help this animal in pain rather than the tragic aspect of the poem.

EXTENDING INTERESTS

Extension reading . . . Suggested books are: *Wilderness Champion*, by J. W. Lippincott, and *Bambi*, by Felix Salten. The teacher might also place good poetry anthologies on the reading table and encourage pupils to find poems they like. Time should also be given for boys and girls to read aloud poems from other sources. The teacher herself might recommend: "Little Things" and "Hawks," by James Stephens, and "Bête Humaine," by Francis Brett Young, in *The Home Book of Modern Verse*; "Kindness to Animals," author unknown, in *The Home Book of Verse for Young Folks*; "A Linnet in a Gilded Cage" and "Hopping Frog," by Christina Rossetti, in *Under the Tent of the Sky*.

◀ PAGES 286-291 ▶

Outdoor Sleuthing

PREPARING FOR READING

A clue to the type of information to be found in "Outdoor Sleuthing" is furnished in the background note on page 500. Have pupils read the note and encourage them to contribute any information they might have about Raymond L. Ditmars. To lead into the reading of the article, have the boys and girls speculate on what kind of outdoor sleuthing a famous naturalist would do.

EXTENDING INTERPRETATION

After the silent reading, direct attention to the last paragraph in the selection and ask pupils to describe any outdoor sleuthing they have done and some of the things they have found out. Then ask what qualities an outdoor sleuth should have if he is to experience the thrill of discovering

the world of nature for himself. Bring out that, like any other detective, he must be a keen observer, he must be patient and persistent, and he must have some knowledge of animals and where to look for them. The questions, "Do you think Mr. Ditmars would consider Sam McArdle and Breck Townsend good outdoor sleuths? Why?" should lead to a recall of the qualities displayed by these two boys.

Some of the interesting details of the article will be highlighted by asking such questions as: "What makes the woodchuck, or ground hog, appear in February? Is it to see his shadow? What happens to the tadpole's tail as he grows into a toad? How does the insects' singing differ from the peepers'? What are some of the important things to remember if you wanted to observe a flying squirrel? If you wanted to watch a colony of peepers? If you wanted to capture a katydid?" Then focus attention on the last question which Dr. Ditmars asks, "What is that noise sounding like a muffled riveting machine?" and see if any members of the class know the answer. If none of the pupils do, suggest that they plan to do some sleuthing on their own to find out. If, however, it is impossible for them to wander through woods and fields to find the answer to this question or to other questions they would like to have answered, suggest that there are many books on nature and animals that can be investigated and that will offer interesting and helpful information.

EXTENDING SKILLS AND ABILITIES

Identifying the author's purpose . . . Often a clear grasp of the meaning of a selection depends upon the reader's ability to identify the author's purpose and his attitude toward his subject and the reader. The procedures suggested below are designed to foster the habit of "thinking about" the author's purpose.

Discussion might be initiated by asking such questions as: "What do you think Mr. Ditmars hopes to accomplish in the selection 'Outdoor Sleuthing'? Can you find one sentence in which he tells the reader his purpose in writing this particular article?" (See the last paragraph of the article.) Next turn the discussion to Ditmars' attitude toward his subject and the reader—"Do you think the author 'practices what he preaches' for the reader? How does he try to 'tease' the reader's curiosity? Is this an effective method of arousing interest? Why? Did you have a feeling that Ditmars was talking to you as you read his article?"

Contrast Stephen Meader's purpose in "Old Scar-Back" with that of Ditmars' by leading pupils to tell how they think Meader's purpose differs from Ditmars'. Guide the discussion so that the class realizes that one author's major purpose was to give us a good story which he hopes we will enjoy; the other has written an article in which he tries to convince us that outdoor sleuthing offers a succession of thrills—yet both use outdoor sleuthing as their central idea. Encourage individual pupils to tell which author they think more nearly succeeds in "selling" the idea that the outdoor world is full of thrills for the amateur naturalist. Conclude the discussion by pointing up the idea that when we try to determine the author's purpose we are trying to decide what he hoped to accomplish in the mind or in the emotions of the reader.

Identifying the author's organization of ideas... This lesson is designed to promote the ability to identify an author's pattern of thought or organization of ideas. Through guided discussion develop the understanding that there are various ways in which Mr. Ditmars might have organized the ideas he presented in this selection, but that his pattern of organization is *general-specific*.

As the first step, lead pupils to skim the article; then review in group discussion the major ideas presented—in the order of presentation. The terms *general* and *specific* should be used as the order of ideas is traced in an informal way. Questions similar to the following may prove helpful in guiding the discussion:

What does the author do in the first paragraph? (States his subject and his attitude toward it)

What does he do in the second paragraph? (Defines the general term "animal")

What *general* kind of animal does he take up first? (Rodents)

What *specific* rodents does he talk about? (flying squirrel, rabbit, woodchuck)

He mentions a bird in the course of his discussion, but does he discuss birds as a group?

What group of animals does he take up after the rodents? (toads)

What *specific* kind of toad does he discuss in some detail? (peeper)

What is the last *general* class of animals he takes up? (insects)

What *specific* insects does he mention? (cricket, meadow locust, katydid)

Which one does he treat with some detail? (katydid)

What does the author do in his last paragraph? (restates his main purpose)

As the second step, suggest that Mr. Ditmars might have accomplished his purpose by presenting his ideas as if he were describing what he had observed on an outdoor sleuthing trip of his own. Develop the idea that if the author had used this method of presentation, he would probably not have mentioned all the rodents in one group—hence, he might have talked about one rodent, then an insect, then another rodent, in the order in which he saw them.

By contrasting the two patterns of presentation, lead pupils to conclude that in this article the author used a *general-specific organization* of his ideas rather than a sequential *time or space arrangement*. If the teacher desires, she may also suggest other possible patterns of organization the author might have used—*familiar to unfamiliar*, for example.

In conclusion, suggest that pupils turn to and skim the selection "Plasma: Medical Wonder of Today" (pages 159-164) to see if they can determine: (1) the authors' purpose and (2) the general organization of ideas. Pupils should conclude that the authors' major purpose was to present briefly the history of the development of plasma, and that in the main they use a *time arrangement* in presenting their ideas.

Think-and-Do Book . . . Use pages 64 and 65.

EXTENDING INTERESTS

Seeing movies . . . Pupils will enjoy seeing movies or slides about animals common to the region in which they live, and such visual aids will be of help to pupils in their own outdoor sleuthing. Almost all film-distributing centers have films of this kind listed in their catalogues under such titles as "Animals" or "Natural Science." State and local visual-aid departments may also be helpful in furnishing catalogues and advice on appropriate films.

Extension reading . . . Pupils who are interested in learning more about Dr. Ditmars' work might like to read *Raymond L. Ditmars: His Exciting Career with Reptiles, Animals and Insects*, by Laura N. Wood. For easy reading, the teacher might suggest *A Family to Raise*, by Irmen-garde Eberle. Members of the class who are especially interested in animals should become familiar with *Parade of the Animal Kingdom*, by Robert Hegner, and *Animal Tracks*, by George Mason.

The Pasture

PRESENTING AND INTERPRETING THE POEM

In this wistful poem of invitation the ideas are expressed with simplicity and directness, and pupils should be able to read and enjoy the poem with little guidance.

Have the boys and girls read the poem silently and then invite comments on it when they have finished. In pointing up the mood that the poem "The Pasture" sets, the following ideas might be developed: "Some of the errands that we do, we may do grudgingly. There are other things that we do, however, like making a garden and watching it grow, feeding the dog and seeing him thank us by wagging his tail, that give us a feeling of happiness and satisfaction we think others who don't do these things must miss. The young country boy who speaks in the poem has a sense of quiet happiness as he starts out to the pasture, and at the same time he feels a desire to share his experience with someone else." The teacher might then encourage various members of the class to tell of times when they have received pleasure from doing a simple task or when the enjoyment of an experience was heightened by the mere fact of sharing it with another.

ORAL INTERPRETATION

The direct appeal of this poem makes it one that young people enjoy reading aloud. Pupils should be encouraged to read it in a simple, sincere manner.

EXTENDING INTERESTS

Creative writing . . . Boys and girls who enjoy writing might like to experiment with putting some of their thoughts and ideas about simple everyday happenings in poetry form.

On a Night of Snow

PRESENTING AND INTERPRETING THE POEM

This, like "The Pasture," is a simple poem which can be read independently. Call attention to the title and to the pictures on the page; then suggest that the boys and girls read the background note on page 500. This note provides an effective lead into the silent reading. As an additional help before pupils read the poem for themselves, it may be advisable for the teacher to explain the following words and phrases: *marguerite* (a kind of daisy with white petals) *spherical* (round), *intoning* (chanting; reading or reciting in a singing voice), *portents* (signs, omens), and *meadow grasses hang hoar* (meadow grasses weighted down with white frost).

After the silent reading, point up the following ideas: the girl is peaceful in the warmth of the fireside and longs for her cat to share her contentment; but the wild winds, the night noises, and the snowy darkness appeal to the cat's untamed nature and draw him irresistibly out of doors. Pupils should especially note that the first stanza expresses the viewpoint of the girl; the second, that of the cat.

Then mention that Elizabeth Coatsworth has written many poems and stories about cats. This poem expresses her belief that in spite of all the comfort which people may provide for the pet, in spite of how affectionate it may be, there is something essentially aloof and untamable in the nature of a cat.

ORAL INTERPRETATION

Before members of the class read the poem aloud, remind them that there are two different speakers in the poem and that there is a contrast in the mood of the two stanzas. Then choose two pupils to read this poem, each reading one stanza.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 66.

Creative writing . . . Point out that in the second stanza of this poem Miss Coatsworth has imagined herself in the cat's place and has expressed its thoughts in human terms. Encourage members of the class to write in prose or poetry their own version of a story in which they endow an animal with the powers of speech.

Extension reading . . . Recommend such poems as: "The Runaway," by Robert Frost, and "Hearth," by Peggy Bacon, in *My Poetry Book*; "Going for Water" and "Mowing," by Robert Frost, in *The Home Book of Modern Verse*.

◀ PAGES 294-310 ▶

Old Slewfoot

PREPARING FOR READING

When pupils read this story, they will readily sense the almost frightening closeness of the Baxter family to the outdoor world. For Penny, Jody, and Ma there is no retreat from nature to a warm and comfortable living room like that of the McArdles or of the outdoor detectives. Introduce the story by mentioning this idea to the pupils and by commenting that "Old Slewfoot" takes place in Florida around 1870 in an inland section of the state. Have boys and girls read the background note on page 501 and then read the story to see what hunting was like for Jody and his Pa.

EXTENDING INTERPRETATION

Highlight the warmly human quality of this story by asking such questions as: "Why do you think Jody felt shivery and cold after hunting Old Slewfoot? Do you think Jody changed his mind about hunting? Do you think he will want to go hunting again? Explain your answer." Invite discussion on Jody's boyish love of tracking through the woods and swamps and how it was tempered by the fight that he witnessed.

Draw attention to what Ma Baxter says about Jody on page 294, begin-

ing. "Look at him move. . . ." Then center attention on Jody and encourage pupils' reactions to him by asking such questions as: "What does this tell you about Jody? Do you think he is really lazy about hoeing? Why do you think he would rather hunt than hoe?" In their answers, boys and girls should bring out how the world about him excited Jody and how it seemed to lure him away from the tedious job of hoeing.

Pupils will probably be just as interested in the relationship between Penny and Jody as they were in Jody himself. Bring out their reactions by asking such questions as: "What makes you think Penny understood how Jody felt about hunting when they started out and how he felt about it after they returned? How did Penny help Jody understand the ways of nature and of animal life?" Emphasize that Penny was very wise in the ways both of nature and of boys by encouraging pupils to mention Penny's care in explaining to Jody why wild animals are often brutal and cruel, his knowledge of how to train animals, his kindness and concern for Julia, and his understanding of Jody's feelings.

Comments on Penny's philosophy about killing animals should evolve easily out of this discussion. Pupils may have already pointed out the paragraphs on page 310 in which Penny tells Jody that the animals kill only to live. If not, call attention to these sentences and ask pupils if they think Penny was harsh in his judgment. Remind the class that the Baxters were always close to hunger themselves. Encourage comments on whether or not they think Penny would ever hunt just for the fun of it. Mention that Penny's feelings are pretty well summed up by the last five lines on page 299.

EXTENDING SKILLS AND ABILITIES

Promoting vivid imagery . . . To visualize the setting of "Old Sleefoot" and to relish the real flavor of the characters' conversation, the reader must be able to picture the story's locale and to hear the flowing dialectal speech with which Marjorie Rawlings endows her characters.

To stimulate vivid imagery, mention that the author pictures graphically by means of words and phrases the Florida setting as she imagined Penny and Jody saw it. As an example of this, call attention to the sentence on page 297: "A gust of air passed across the open area, the saw grass waved and parted, and the shallow water of a dozen ponds showed clearly." Then ask, "If a photograph had been taken of this particular scene, what

would you see in it?" Suggest that many word pictures which the author uses are almost like photographs, so clearly and vividly do they picture for the reader the scene being described. Encourage pupils to skim the story for other phrases and sentences which photograph the setting of the story as surely as though actual pictures had been taken. As each sentence or phrase is located, ask pupils to describe in their own words what picture it makes them see.

Not only has Marjorie Rawlings given the reader word-photographs, but she has also given recordings of the sound of the speech used by the story characters, for the conversation is written to record the very sound of the words spoken by Penny, Jody, and Ma. Ask individuals to try reading some of the conversational passages to show how they think the speech actually sounded. Pupils might then try changing some of these passages into their own ordinary speech. After this is done, encourage comments on how the author's use of dialectal writing helps the reader know the characters the author pictures. Conclude by bringing out that the dialogue, written in dialect, is well chosen for the characters in this story.

Think-and-Do Book . . . Use page 67.

EXTENDING INTERESTS

Word pictures . . . Remind pupils of the many fine word pictures used by Marjorie Rawlings in "Old Slewfoot" and mention that other authors also make use of this technique. Provide opportunity for pupils to skim preceding stories in *WONDERS AND WORKERS* and find sentences or passages that may be read aloud to the class as examples of how authors draw these word pictures. It should also be suggested that pupils look for similar passages in their independent and extension reading materials—books, stories, poems. Next encourage members of the class to survey magazines, newspapers, and personal photograph collections for prints that appropriately illustrate what the word pictures convey. The teacher should caution pupils to choose only those pictures that actually fit the lines that were chosen. These pictures, with the appropriate lines printed below, might be placed in an album, posted on the bulletin board, or mounted on posters.

Seeing movies . . . The hunt for Old Slewfoot is pictured in a movie, "The Yearling," based on Marjorie Kinnan Rawlings' book. The action

of the hunt is almost exactly like that in the story, and pupils who have seen the movie should enjoy recalling and telling of the visual interpretation of this incident and other adventures of Penny, Ma, and Jody.

Extension reading . . . Suggest that pupils read: *The Yearling*, by Marjorie Kinnan Rawlings; *Strawberry Girl*, by Lois Lenski; *Jungle Book*, by Rudyard Kipling; and *Jimmie*, by Ernest Baynes.

4 PAGE 311 ▶

An Indian Summer Day on the Prairie

PREPARING TO PRESENT THE POEM

Vachel Lindsay uses an unusual technique in this poem, following the metaphorical style of Indian poems. In every stanza the sun is compared to an earthly thing, each expressing a different phase of the sun's daily cycle across the sky. This is typical of the Indian way of explaining natural wonders in terms of everyday things.

The following interpretation may be helpful in presenting the poem to the class: In the first stanza the rising sun is compared to a colorful young Indian huntress. By midmorning the increasing heat from the sun dispels the rain clouds just as a fire creeping across a prairie burns the bushes, leaving none to blossom. The noon sun is so fierce that it burns like the hurt of a wounded deer who shakes his horns and flashes his eyes in anguish. By evening the sun sinks like an old eagle settling down on the cliffs.

PRESENTING AND INTERPRETING THE POEM

To set the mood for the poem, call attention to its title and ask the pupils to think of a typical Indian summer day—a warm, sunny autumn day—on the prairie. Then comment that the poem is not only about an Indian summer day, but is also written in Indian style. Have pupils read the background note on page 502, noting that the Indian technique is to compare the wonders of nature to everyday things. Have members of the class read the poem silently and then ask, "What phase of the sun is described

in the first stanza? How is it described?" Bring out that the poet compares the early morning sun to a young Indian huntress. Continue with the remaining stanzas, encouraging pupils to see that the poet is comparing the sun in each of its various stages to an earthly thing. The interpretation of each stanza may be highlighted by a discussion of the ideas suggested in the first part of the lesson plan.

ORAL INTERPRETATION

Hearing the poem read aloud by the teacher will point up the simplicity of the author's style in contrast to his vivid imagery. After the teacher has given her own oral interpretation, she may suggest that the class select a different pupil to read each of the stanzas aloud. Remind boys and girls to keep their interpretations simple—let the word pictures speak for themselves!

◀ PAGE 312 ▶

A Vagabond Song

PREPARING TO PRESENT THE POEM

The regular alternating of light and heavy accents in this poem gives a rhythm that steps along briskly, and the timing should be brisk rather than slow. However, no attempt should be made to follow the rhythm exactly in oral interpretation, for it moves along as an undercurrent to the poet's mood and meaning, enhancing the excitement he feels about this beautiful autumn day.

PRESENTING AND INTERPRETING THE POEM

In presenting this poem, the teacher might first ask pupils if they have ever felt, in the spring or fall, an almost overwhelming desire to get away from the workaday world or from the classroom and go for a long walk in the woods, have a picnic, or just spend the time sitting on the ground watching the clouds roll by. In the conversation that follows, elicit that all of us at one time or another have had the yearning to be a vagabond. Then tell pupils that the poem "A Vagabond Song" is about one of these

lovely fall days when the sun is shining and there is a smell of wood smoke in the air. The teacher might then read the poem aloud while the boys and girls follow it in their books. The oral reading should bring out the crispness of the fall day, as expressed in the rhythm, and at the same time the beauty of the scene that the words bring to mind. After pupils have heard the poem read, encourage their comments on the appropriateness of the title.

ORAL INTERPRETATION

To aid boys and girls in reading this poem aloud, point out that it has a gay rhythm. Make sure they understand that the rhythm should not be stressed in their oral interpretation but that it helps one express the spirit of the poem.

EXTENDING INTERESTS

Enjoying poetry . . . For more poems on the color and love of nature, suggest "The Joys of the Road," by Bliss Carman, in *The Home Book of Verse for Young Folks*; "Roadside Flowers," by Bliss Carman, and "Autumn," by Edwin Curran, in *The Home Book of Modern Verse*; "Indian Summer," by John Greenleaf Whittier, in *Poems for the Children's Hour*; "An Explanation of the Grasshopper," and "The Mysterious Cat," by Vachel Lindsay, in *Under the Tent of the Sky*; and "Autumn," by William H. Carruth, in *My Poetry Book*.

◀ PAGES 313-324 ▶

Cradle of the Storms

PREPARING FOR READING

Call attention to the title of the selection and invite any comments which pupils might like to make on where storms are thought to originate and why people today are interested in knowing more about the weather. Then have pupils read the background note on page 502 and discuss the information given there about Father Hubbard and his work. This discussion can be used as a direct lead into the reading of the selection.

EXTENDING INTERPRETATION

To stimulate pupils' reactions to this selection, have the following questions mimeographed or write them on the board. Provide time for the boys and girls to think about these questions and prepare to give their answers in the discussion period that will follow. The young people may skim the story for their answers, but they should not write them down.

1. What were some of the most dangerous aspects of the adventure?
2. How did your ideas about the inside of a crater change as you read this story? Do you think it would be possible to descend into the crater on foot? Explain your answers.
3. If you had been in Dorbandt's place, would you have made the dive into the crater or do you think you would have turned back as Father Hubbard's other aviators did? Why or why not?
4. Do you think Dorbandt was foolhardy when he flew so dangerously close to the walls of the crater just to see the river? If so, why do you think Father Hubbard chose him to make the expedition?

The first question will test pupils' recall of the events of the selection as the members of the class point out the dive into the volcano at top speed, required by terrific downdrafts; the lethal gases in the pit itself; the unexpected air currents; and the impossibility of securing aid in case of trouble. The discussion should also include comments on the treacherous weather conditions encountered in getting to the volcano—the storm at the beginning of the trip and the murky weather during the trip which forced the men down and kept them grounded for several days.

The second question will lead into a discussion of the volcano itself. Boys and girls should point up the characteristics of the volcano—its depth, its width, and the fact that there was a river inside it. Speculation on the latter part of this question should bring out the fact that tremendous forces of air and gases sweep in and out of the hole, that the sides are very steep, and that there might be an eruption during the long time required for the climb.

The third and fourth questions will center attention on the personalities of Dorbandt and Father Hubbard. Make sure pupils mention that while some of Dorbandt's stunts might have seemed reckless, they actually enabled Father Hubbard to gain invaluable information that could not be gained in any other way. Members of the class might also contrast Father Hubbard's personality with Dorbandt's, and the teacher might

point out that this article gives a good example of how two men with different temperaments can help each other achieve worthy goals.

Suggest that this article might also have been included in Unit III of *WONDERS AND WORKERS* and ask boys and girls to tell in what way the selection is appropriate for that unit. They should point out the importance of the airplane as a modern wonder, which made possible a venture so defiant of nature, and they should also realize the significance of the pilot's skill.

EXTENDING SKILLS AND ABILITIES

Discriminating between types of material . . . To aid pupils in discriminating between fact and fiction, call attention to the selection "Cradle of the Storms" and have pupils read again the background note on page 502. Then discuss with the class whether this selection is factual or fictional and what incidents or facts in the selection make them think as they do. The same procedure may be used in a discussion of the preceding stories and articles in the unit, highlighting those incidents that might lead pupils to decide whether a selection is fictional or true. Suggest also that boys and girls refer to the background notes for help in making their decisions. Remind pupils that exciting adventures actually occur in real life, pointing out such selections as "Making Under-seas Movies," "Engine 999," and "Cradle of the Storms" as examples of real-life happenings.

Think-and-Do Book . . . Use pages 68-69, 70, and 71.

EXTENDING INTERESTS

Preparing reports . . . Although Frank Dorbandt did not have weather reports to aid in his flight, the U.S. Weather Bureau does give reports wherever and whenever possible. To promote a better understanding of this service, the teacher should suggest that pupils locate information on such topics as: the history of the United States Weather Bureau, the instruments used in obtaining data for weather reports, how weather maps are made, and the people who depend on weather reports in order to conduct their everyday businesses.

Articles on the "making of weather" can also be located in current magazines, and pupils should be referred to the *Readers' Guide to Periodi-*

cal Literature for sources of such articles as "How Will You Have Your Weather?" "Weather Control Predicted," "Weather on Order," etc.

To extend this interest in weather, the teacher might invite boys and girls to clip from their newspapers copies of weather maps that may be printed there and bring them to class, where they can be studied and interpreted. Attempts might also be made to forecast tomorrow's weather on the basis of the lines on the weather maps.

Extension reading . . . Remind pupils of the suggestions for independent reading on page 522 of *WONDERS AND WORKERS*, and mention that they might also enjoy *Danger on Old Baldy*, by Margaret E. Bell.

EXTENDING THE UNIT THEME

Discussing new interests gained . . . Encourage pupils to discuss new interests and new ideas that they have gained during the reading of this unit and through their related extension reading. Members of the class may mention that they became interested in reading about explorers who have conducted scientific expeditions, in making picture collections of animals native to various parts of the world, in keeping records of the habits of a pet, in reading about how various animals protect themselves from their enemies, in making collections of anecdotes about animals, or in learning about how a zoo is run. Lead pupils to discuss the qualities necessary to the successful pursuit of a nature hobby; e.g., patience, persistence, alertness.

Sharing reading experiences . . . At this time, pupils who have read books written by authors of stories in this unit may report on these books, and others in the class may supply interesting information concerning the lives of the authors. A volunteer might prepare a list of books by these authors.

Several periods may well be devoted to discussion and oral reading of portions of books, stories, magazine articles, or newspaper materials about natural science that members of the class have read and enjoyed. These articles should be chosen with care, and the pupils should be well-prepared in advance so that the report will be presented in an interesting manner. A résumé of the plot and answers to questions raised during the reading of the unit might be included in this material.



In the Service of Mankind

BIOGRAPHY . . . more than any other type of reading, has the power of arousing in the reader the spirit of emulation. If a child becomes genuinely absorbed in the achievements of a real person, he unconsciously thinks to himself, "Look what *he* did in spite of everything. Perhaps, then, I can do something big, too, if I keep at it." Biography carries with it the impress of reality: this actually happened, this real man actually went through all this and accomplished all these things. No other form of reading carries quite this weight.

The biographical sketches in this unit deal with Louis Pasteur, George Washington Carver, and others whose hard work and perseverance led to discoveries that have been of inestimable value to mankind. The truly biographical material is supplemented by accounts of Gutenberg and Leeuwenhoek in which the authors have called upon their imaginations to supplement facts. But all the selections point toward the goal of making famous people "come alive"

for the reader by presenting intimate pictures that reveal some of their problems, their inner drives, their personal strengths and weaknesses, as well as their achievements.

Reading about these great men and their service to mankind should stimulate interest in the many fine biographies now available for upper-grade boys and girls. The individual who becomes genuinely interested in such books and who reads them with satisfaction is gathering inspiration for his or her own future. Thus biography, like all good literature, will contribute to the personal and social growth of the individual.

INTRODUCING THE UNIT THEME

In approaching the unit, initiate a discussion of some of the great discoveries and events in science, both in contemporary and past times, and of the way these developments have fundamentally affected the course of human life. Encourage boys and girls to mention the names of the men or women with whom they associate these discoveries and to contribute any information they may have about the lives of these people.

Explain that the selections in this unit dramatize a few of the great achievements of mankind by describing some portion of the lives of the individuals who were largely responsible. Have pupils turn to the table of contents and glance at the titles of the selections in the unit "In the Service of Mankind." Mention that two of the men about whom they will read—Gutenberg and Leeuwenhoek—lived long ago and that far less is known about their lives than about the men who lived and worked later. Then have pupils speculate on how authors who write biographies of famous people might gather their information. In the ensuing discussion, enumerate some of the best sources of information; e.g., letters, diaries, newspaper articles, scientific journals. Encourage comments on any biographical material that pupils have read recently and lead them to tell why this type of literature is enjoyable.

Since one of the aims of this unit is to stimulate interest in reading biography, arrange a bulletin-board display of pictures and articles about famous men and women or plan a display of attractive book covers and book reviews of interesting biographies. Also encourage pupils to make use of the Bibliography on page 523 of *WONDERS AND WORKERS*, which suggests material to be read in connection with this unit.

Gutenberg and His Printing Press

PREPARING FOR READING

To introduce this selection, tell pupils that about five hundred years ago almost every book produced in Europe was laboriously copied by hand. Allow time for speculation about how this condition must have affected the life of the times. Then suggest the reading of the background note on page 503 for an introduction to the man who is usually credited with the invention of printing. The last sentence in the note should lead to a consideration of *why* we know less of Gutenberg than of some of our more recent inventors and why Mr. Holland would find it necessary to use fictional episodes if he wanted to present Gutenberg as an individual.

EXTENDING INTERPRETATION

After the silent reading, focus attention on the main events of the story by asking pupils to enumerate and give details concerning the various steps by which, according to this account, Gutenberg arrived at the discovery of movable type and the invention of the printing press. Then have the last paragraph on page 339 read aloud. Ask someone in the class to explain its meaning and then lead into a discussion of how Gutenberg's prophecy has come true down through the years. Bring out that the author, Mr. Holland, is aware of the fact that the ability to see beyond the limits of their own times is one of the outstanding characteristics of many of the famous inventors and men of science and that he has attributed this quality to Gutenberg.

To emphasize some of the other qualities which the author has imagined that Gutenberg possessed, ask such questions as: "In what way did Gutenberg make use of the existing knowledge of block printing? How did he solve the difficulty of inadequate tools and poor ink? What was his occupation when he started his work on block printing? In what way would his work as a lapidary help him in his experiments with block printing? Why did he not give up his work as a lapidary after his success with the St. Christopher picture? Why would the carving of blocks to print an entire book have been too great a venture for most men? How would

you contrast the difference in the attitude of his helpers with that of Gutenberg? What was Gutenberg's reaction when he split the block of wood on which he had spent so much time? What does this reveal about his attitude toward failure? Why do you think Gutenberg wasn't satisfied with just making one improvement in the art of printing?"

In conclusion, remind the class that in this story of Gutenberg the individual episodes and the conversations between the characters are created from the author's imagination; then lead pupils to tell whether or not they think such "literary license" is permissible.

The teacher may wish to explain that even though Gutenberg is traditionally considered the man who invented the process of printing with movable type, there are many historians who think that no one individual conceived the original idea and worked it out. These historians maintain that Gutenberg's chief contribution was that of perfecting an existing process and putting it on a practical basis. Regardless of who invented the process, however, most historians agree that Gutenberg was the man who developed it to the place where it could be used to produce books that were artistic and at the same time readable and relatively inexpensive. It is also interesting to note that after Gutenberg's work, little improvement was made in the use of movable type or printing presses for nearly three hundred years.

This story affords an excellent opportunity for directing attention to the *values* of reading—both to the individual and to society. To stimulate thinking along this line, first help pupils summarize the impressions they gained from the story concerning the part that books and reading played in the life of Gutenberg's time. Then turn the discussion to the part that reading plays in our lives today. What do we gain from reading? In what ways would we be limited if we could not read—or if we had nothing to read?

EXTENDING SKILLS AND ABILITIES

Summarizing ideas in outline form . . . This lesson is designed to promote the ability to identify the main ideas, the relationship between main and subordinate ideas, and the organization of this story. Have pupils recall the type of organization used in "Plasma: Medical Wonder of Today" and "Outdoor Sleuthing" (*time sequence* and *general-specific*). Then ask, "What kind of organization do you think Rupert Holland used

in writing 'Gutenberg and His Printing Press'? [time sequence] --
what lines did Gutenberg do his first work? [block printing] To what in-
vention did this work eventually lead? [printing with movable type]"

Ask, "In outlining this story what two main heads would you use?"
Write *Block printing* on the blackboard as the first main heading in the
outline and ask pupils to think of appropriate subtopics which might be
placed under this first main topic. Each suggestion should be evaluated
by the members of the class to see if it tells what Gutenberg did with
block printing—his first experiments, the improvements made, and the
products of his work. When these have been decided on, write them
under the first main heading. Then point out that each of these sub-
topics might also have subordinate ideas listed under them. For example,
lead pupils to see that under the heading "First experiments in block
printing" might be placed "Reproduction of playing cards" and "Carving
of Anna's name." The same procedure should be continued until an
outline somewhat similar to the following is worked out.

Gutenberg and Printing

- I. Block printing
 - A. First experiments in block printing
 - 1. Reproduction of playing cards
 - 2. Carving of Anna's name
 - B. Improvements in block printing
 - 1. Selection of the best wood
 - 2. Improvement of tools
 - 3. Separation of picture and text
 - 4. Improvement of ink
 - C. Products of improved block printing
 - 1. Reproductions of picture of St. Christopher
 - 2. Copies of History of St. John the Evangelist
 - 3. Copies of Bible for the Poor
 - 4. Copies of Canticles
- II. Printing with movable type
 - A. Experiments with movable type
 - 1. Carving of single letters
 - 2. Fastening letters of word together with string
 - 3. Printing of "bonus homo"
 - 4. Making a supply of each letter
 - 5. Cutting of notches in edges of type
 - B. Invention of printing press

Locating and organizing information . . . To promote the ability to locate information supplementary to that given in a specific selection and to develop skill in using reference materials and in organizing material in outline form, proceed as follows. Suggest that the reading of the story "Gutenberg and His Printing Press" may have raised some questions about the printing of books. Class members should be encouraged to voice these queries; and as each is mentioned, it should be written on the blackboard. When the list has been completed, ask where pupils would look for the answers; e.g., encyclopedias, history books, etc. Bring out the use of tables of contents and indexes in facilitating the location of information. Then lead the boys and girls to tell under what headings or titles they think information about printing might be found. (Printing, Books, Printing Press, Typography, etc.) Individuals in the class should then be given the opportunity to choose the questions they would like to investigate.

The teacher should stress the fact that when reading for details, it is often wise and timesaving to record in note form the ideas gained and then to organize these notes in an outline so that they may be more easily recalled. Suggest that each pupil organize the information he finds in an outline form similar to the one worked out for "Gutenberg and His Printing Press." Time might then be allotted for pupils to share with others in the class the information gained.

Think-and-Do Book . . . Use pages 72 and 73. Page 72 gives pictures and descriptions of the hornbook and battledore, two of the first kinds of books made for children.

EXTENDING INTERESTS

Creative art . . . The artistry and painstaking work that went into the early hand-illuminated books place them among the most treasured of art objects in our museums and libraries. Encourage pupils to find in reference books or current publications colored photographs or reproductions of some of the pages in these early books. For those who are interested in creative art work, it is suggested that they try to make a page as a copyist of early times might have done. A favorite poem, a prayer, a saying, or a motto could be chosen for the page, and the decorative effects might be worked out in connection with the art class.

Extending concepts . . . If possible, class members might be taken on a trip through a typesetting and printing establishment. It would be particularly interesting for the pupils to see how a machine sets a line of type and casts a metal slug similar to the wooden block which early printers carved as a whole. Observing the final step, printing, will help emphasize the significance of the process which John Gutenberg gave to the world and the importance of the improvements that have been made since his time.

Extension reading . . . An excellent book about Gutenberg which pupils may enjoy reading is *Wings for Words*, by Douglas Crawford McMurtrie. For additional information about Gutenberg, suggest pages 192-207 of *Great Inventors and Their Inventions*, by Frank R. Bachman, and pages 179-189 of *Heroes of Civilization*, by J. Cottler and H. Jaffe. "The Song of the Press," by William H. Hillyer, in *Poems for Modern Youth*, is also appropriate at this time.

◀ PAGES 340-349 ▶

The Lens Maker of Delft

PREPARING FOR READING

Pupils might well read and discuss the background note and the Help Yourself notes to learn about some of the theories that were prevalent at the time Antony van Leeuwenhoek lived and to get some idea of how his experiments revolutionized scientific research.

EXTENDING INTERPRETATION

Write the following questions on the blackboard or distribute previously duplicated copies of them. Suggest to class members that after reading the story they should consider each question carefully and decide on what answers might be given in the class discussion that will follow. Explain that answers are not to be written down. After the silent reading allow sufficient time for pupils to think about the questions and to refer again to the text if they wish to do so.

1. What events in the story would lead you to think that Leeuwenhoek would have continued his experiments even if the Czar had not seen and complimented his work?
2. How do you account for the Burgomaster's and Dame Lunter's opinion of Leeuwenhoek's work? Do you think there were other people who felt the same way? What effect do you think the Czar's visit might have had on these doubters?
3. What were Leeuwenhoek's reasons for disbelieving the queer ideas about nature that the burgomaster believed?
4. Name three things that Leeuwenhoek discovered or experimented on. How has his work proved useful to mankind?
5. If you had been in Jan Wolke's place, what things would you have liked to study through the microscope?

The answers to questions 1 and 2 will serve as a check on pupils' ability to get an overall view of the story and will encourage reactions to the character of the inventor as well as to the other individuals presented in the story. The discussion should also highlight some of the ideas that were prevalent at this time and the reasons for the people thinking as they did.

Question 3 should bring out the importance of the powerful lenses which Leeuwenhoek made to study minute forms of animal life—a thing that had not been possible before this time. If pupils do not mention it, reference should also be made to the Help Yourself note on William Harvey—although he had suggested the theory of the circulation of blood, it could not be proved until doctors could see for themselves. Some of the erroneous ideas and superstitions that prevail today might also be brought up for discussion. Pupils should be led to see that these mistaken notions exist because some people refuse to learn or accept the scientific explanations or because scientists have not yet been able to disprove these false beliefs.

Question 4 will give the teacher an opportunity to check pupils' ability to recall details from the story. Boys and girls should mention such points as: Leeuwenhoek manufactured lenses that were more powerful than any that had been made before, studied the way blood circulates, studied animalcules and bacteria, found that the red blood corpuscles in man were round and not square as in frogs and fishes. If any members of the class need help on this question, suggest that they skim the story and re-read the Help Yourself notes to find the places where these achievements have been specifically mentioned.

Question 5 should lead into a discussion of pupils' existing scientific interests or of those aroused through the reading of this selection. Comments on the wonders revealed by a microscope may stimulate the curiosities and imaginations of the boys and girls who have never looked through a powerful lens. Those members of the class who have examined slides under a microscope should be given the opportunity to describe what they saw.

Call attention to the year (1698) in which this story takes place and ask what clues in the story suggest sources to which the author might have referred for some of the details included in this story (the copybook in which Leeuwenhoek recorded his experiments, the reports of observations and discoveries which he sent to several scientific societies, etc.). The teacher might mention that pages 74-75 of the THINK-AND-DO BOOK give excerpts from some of these sources. Then encourage class members to enumerate Leeuwenhoek's experiments, discoveries, and honors that are brought out in this story and tell how they think these details might be substantiated by the sources mentioned above. Extend this discussion by having members of the class point out the parts of this sketch which they think were created from the imagination of the author. Then ask why this account should be more historically accurate than the story of Gutenberg and why fewer facts might be obtainable about Leeuwenhoek than about men who were born in more recent times—Thomas Edison, for example.

In conclusion, encourage comments on what this sketch tells about Leeuwenhoek as a person. Direct the discussion with such questions as: "Why do you suppose Leeuwenhoek paid little heed to his work as a janitor of the town hall? Why did he let Dame Lunter go into the shop by herself? What do these two incidents indicate about the man and the reasons for his actions? Would you say that he had great powers of concentration? What specific incidents in the story can you cite to prove your answer?"

EXTENDING SKILLS AND ABILITIES

Comparing types of material . . . This exercise is designed to acquaint members of the class with what biography is and to bring out some of the values of reading biographies of famous people. The teacher might initiate discussion by having pupils tell how they think biography

might be defined (the written story of the life of a person). Then ask, "After reading about Gutenberg and Leeuwenhoek, how did you feel about these men?" After pupils have given their answers to this question, the idea that good biographical material presents famous people as individuals rather than as types may be highlighted by contrasting the ideas about these men that might be gained from an encyclopedia with the ideas that are gained from biographical books or stories. Accounts of Gutenberg and Leeuwenhoek given in an encyclopedia might then be read aloud to the class.

To help pupils appreciate the fact that biography also helps the reader evaluate a person's contribution to mankind, ask, "Do you think Gutenberg and Leeuwenhoek each merit the fame which history has awarded him? Why do you think as you do?"

Structural analysis . . . At this point the teacher may wish to devote some time to meeting the individual needs of those pupils who have encountered difficulty in deriving words through the use of structural analysis. For those who need help in identifying root words in derivatives, the teacher might proceed as follows: assign a different page of "The Lens Maker of Delft" to each of the pupils and ask them to list the words on that page to which prefixes and suffixes have been added. Time should then be arranged so that the teacher may check each list and work with each child individually, having him identify the root word and the suffix or prefix that has been added to the root word to form the derivative. If the teacher wishes and if time permits, the group might compile a combined list. For additional practice, refer to the exercises on pages 72-73, 104-105, 110-111, and 145-146 of this **GUIDEBOOK**.

Think-and-Do Book . . . Use pages 74-75 and 76. Pages 74-75 offer opportunity to read varied types of source material from which a biographer might obtain information.

EXTENDING INTERESTS

Extending scientific interests . . . Pupils should be given time to examine under a magnifying glass such things as a strand of hair, a leaf, or a piece of paper. If a microscope is available, the objects that have been examined under the magnifying glass might be reexamined. Encour-

age comments on what is seen under the lenses and have pupils compare the modern microscope with the one used by Leeuwenhoek.

Extension reading . . . For other biographical sketches of Leeuwenhoek, see pages 271-294 of *Conquests of Science*, by R. Compton and C. H. Nettels; pages 260-268 of *Heroes of Civilization*, by J. Cottler and H. Jaffe; and pages 3-24 of *Microbe Hunters*, by Paul De Kruif. *Famous Men of Science*, by Sarah K. Bolton, is recommended as a source for sketches of the lives of other renowned scientists.

A member of the class might also be asked to read aloud to the rest of the class the poem "The Magnifying Glass," by Walter de la Mare, on page 162 of *PATHS AND PATHFINDERS*.

◀ PAGES 350-363 ▶

The Story of Louis Pasteur

PREPARING FOR READING

Too often in the case of new discoveries or developments in science we think only in terms of the new without giving credit to the accumulation of knowledge and work which made the revolutionary idea possible. The background note on page 506 summarizes this idea and provides a direct lead into the silent reading of this account.

EXTENDING INTERPRETATION

The discussion which follows the silent reading might start with a "free opinion" conversation in which members of the class express their reactions to the selection as a whole. Then a procedure similar to that explained in the "Extending Interpretation" section of the preceding lesson plan might be followed in presenting the following questions:

1. What basis did Pasteur have for making the statement that he believed science would triumph over ignorance? Is that triumph complete today? Why or why not?
2. Name some of the numerous discoveries that Pasteur made.
3. Just as the work of Pasteur has led to many important advances in recent years, so his own discoveries were made possible by the men who went before him. What were some of the discoveries and observations made by Leeuwenhoek that helped Pasteur in his work?

4. *What effect did the incident concerning a man bitten by a mad dog which Pasteur witnessed as a boy have on the life of Pasteur as a scientist? Why do you think the author included this small incident in the story? What effect do you think Pasteur's lameness had on him?*
5. *How has the work of Pasteur affected your daily life? What are some of the problems that still face science in its work of lessening the suffering of mankind?*

Question 1 will check pupils' ability to get an overall view of the important points touched on in this account of one of the world's most famous scientists. If pupils' responses to the second part of this question are that science has not completely triumphed over ignorance, extend the discussion by posing these queries: "Does this prove that Pasteur's prophecy was wrong? What does it prove?"

Question 2 will provide an opportunity to check on pupils' ability to recall details from the story and to select the main ideas from a body of related information. Among the discoveries to be mentioned are: the existence of tiny living things called germs; the causes of fermentation; the fact that heat would kill the germs present in wine and in milk; proof that people and animals could be immunized against disease. Allowing pupils to skim the story will facilitate their ability to contribute to the discussion.

Class discussion of question 3 should aid individuals in comparing Pasteur's and Leeuwenhoek's work and in recognizing cause-effect relationships. The fact that Leeuwenhoek made these discoveries—living things are bred from other living things, animalcules are carried from place to place by various means, heating will kill animalcules—provided the basis for Pasteur's advanced experiments and led to the more complete development of the germ theory of disease, the discovery of the process of pasteurization, etc. In concluding the discussion, emphasize the importance of utilizing existing knowledge in all fields of work as a foundation for improvements and far-reaching discoveries.

The answers to question 4 should highlight the outstanding qualities and characteristics which Pasteur possessed and which, in part, made it possible for him to accomplish his great work. Some of the specific ideas to be brought out in this discussion are: how the conditions under which Pasteur lived might have affected his attitude toward disease and his fellow men, how his environment might have given him more than the usual

amount of time alone to think, how his lameness might have made him unusually well-fitted for the patient, painstaking work of the laboratory, etc. These points should lead boys and girls to observe that Pasteur's environment and lameness could well have been contributing factors in the development of his interest in curing diseases, in helping stricken people, etc.

Discussion based on the questions in group 5 should point up problems that still face the human world. Consideration might then be given to the new techniques and methods of medical and scientific experimentation that could help a man solve problems that exist today and to a comparison of the modern man's task with that of Pasteur's.

Have pupils note that the date of Pasteur's experiment in inoculating sheep against anthrax was 1881. Then mention that their grandfathers were alive at that time. Ask if this gives any clue as to the amount of biographical material about Pasteur that is available today. Passages in the text might also be cited as evidence of how the author might have learned the facts about which he wrote. Lead pupils to conclude that this story is a brief but factual account of a great man's life. Then lead them to compare this selection with the two preceding stories in the unit as to the amount of fictional details that have been added to make an interesting account.

EXTENDING SKILLS AND ABILITIES

Identifying the purposes of biography . . . This exercise is designed to summarize and to highlight for pupils some of the things that one may gain from reading biographies of famous people. (In preparing to present this, the teacher might like to refer to the discussion of biography on pages 470-501 of *Children and Books*, by May Hill Arbuthnot.) Initiate class discussion by having pupils recall how biography is defined (the written story of a person's life). Highlight the idea that good biography describes people not as types but as individuals with strengths and weaknesses which all can understand; then ask such questions as: "How did each of these men we have read about react to success or failure, to the ridicule and the disbelief of others? What were some of the weaknesses or limitations that they had? How did these weaknesses or limitations help or hinder them in their work? What part did the circumstances in which they found themselves and the times in which they lived have to do with the things

that they accomplished? What were the qualities that eventually led them to achieve lasting fame?"

Conclude the discussion by having members of the class tell why they think biography is a worth-while type of literature. Guide the conversation so that pupils will bring out that reading about the lives of others provides standards by which the reader may evaluate his own actions and those of people around him. As an example, the teacher might mention Lincoln's love for the biography of George Washington by Pastor Weems and invite comments on how this book might have influenced Lincoln's life.

Structural and phonetic analysis . . . If some pupils are having difficulty in applying the principles of syllabication and the principles that aid in determining vowel sounds in accented syllables, the teacher might write on the blackboard a list of such words as the following: *dentist, internal, baneful, lotus, blandly, spindle, appalling, maintenance, rustic, formidable*. Ask pupils to look at the first word in the list, divide this word into syllables, and tell which syllable they think will be accented and what sound the vowel in the accented syllable will have. In each case, pupils should tell the reasons for what they did by referring to the principles of syllabication, the clues that aid in determining accented syllables, and the principles that aid in determining vowel sounds in accented syllables. (See pages 76-77 and 89-90 of this GUIDEBOOK.)

Think-and-Do Book . . . Use pages 77, 78, and 79. The excerpt from a biography of Pasteur, which is given on page 77, presents Pasteur not only as a scientist but as a very human personality.

EXTENDING INTERESTS

Extension reading . . . For pupils who would enjoy reading a complete biography of Pasteur, recommend *Pasteur, Knight of the Laboratory*, by Francis E. Benz; *Louis Pasteur*, by G. Hallock and C. Turner; and *The Microbe Man*, by Eleanor Doorly. Shorter accounts of Pasteur's life may be found in *Famous Men of Science*, revised and enlarged, by Sarah K. Bolton (pages 270-286); in *More Than Conquerors*, by Ariadne Gilbert (pages 225-249); and in *Men Who Found Out*, by Amabel Williams-Ellis (pages 155-188).

Crawford Long and William Morton

PRESENTING AND INTERPRETING THE POEM

In this poem the authors, Rosemary and Stephen Vincent Benét, dramatize an important discovery in medical science by telling of it in an informal and humorous way. Not until the last stanza is the reader really made aware of the significance of the discovery of ether as an anesthetic.

Suggest that the boys and girls read the background note for an introduction to this poem. In addition, anticipate the difficulty which pupils might have with the line "To Long belongs priority" by explaining that although Dr. Long was the first man to use an anesthetic successfully in performing an operation, he published no report of his work. Dr. Morton, however, working on the same idea but with no knowledge of what Long had done, brought this discovery to the attention of medical men and thus paved the way for its widespread use.

After pupils have read the selection silently, invite their comments on the story that is told, on the authors' style in this poem, and on their reactions to the style of the poem. During the discussion, the teacher might highlight the fact that the informal nature of the poem adds to the feeling that these men actually lived and that they would probably have been very interesting people to know.

Remind boys and girls of other poems written about famous people by Rosemary and Stephen Vincent Benét; for example, "Lewis and Clark," "Wilbur and Orville Wright," and "Walter Reed," all of which may be found in *PATHS AND PATHFINDERS*. If members of the class are not familiar with the poems mentioned above, the teacher might wish to have them read aloud. Comments should then be invited on the author's style in these poems or in other Benét poems that pupils may recall—whether they are usually serious or humorous, or a combination of the serious and humorous. Point up the informality and gaiety of the poems but emphasize that the authors have usually had a serious purpose behind their humorous manners.

ORAL INTERPRETATION

In connection with the oral interpretation, remind the readers to distinguish the more serious lines from the humorous ones by the tone of voice as well as by the tempo with which these lines are spoken.

EXTENDING INTERESTS

Think-and-Do Book . . . Use page 80. On this page boys and girls will find an account of two other doctors who found themselves in much the same position as Dr. Long and Dr. Morton—both having hit on the same idea.

Extension reading . . . *A Book of Americans*, by Rosemary and Stephen Vincent Benét, from which this poem was taken, contains similar verses about famous people which pupils may enjoy reading. In addition, boys and girls should be encouraged to share other poems about famous people which they have read.

Information about the early uses of anesthetics may be found in the chapter "Merciful Sleep," in *The Story Behind Great Medical Discoveries*, by Elizabeth R. Montgomery.

◀ PAGES 366-368 ▶

The World's Greatest Detective

PREPARING FOR READING

To introduce this selection, direct attention to the title and encourage pupils to speculate on the person or the invention that will be discussed. Then suggest that boys and girls read the background note as a direct lead into this story.

EXTENDING INTERPRETATION

Initiate discussion by having pupils tell why they think X rays merit the name of "the world's greatest detective agency" and why Roentgen might be called "the world's greatest detective." Highlight the fact that even

though the author suggests that the discovery of the use of X rays developed from an accidental incident, we are indebted to Roentgen for realizing its significance. To clarify this idea, ask such questions as: "What was the unusual incident that aroused Roentgen's interest? What do you think an active electric tube is? [The Crookes tube mentioned is an early form of an X-ray tube. X rays had been produced before Roentgen's discovery but they had not been recognized as such and their practical use had not been developed.] What were the specific conditions that led to securing the shadow of the key on the film? What implications flashed through Roentgen's mind when he found the key outlined on the plate the second time? What character traits would you say this man possessed as shown by this experiment and these inferences?" Pupils may also be interested in a remark attributed to Roentgen after the discovery of the use of X rays. When asked by a friend, "What did you think then?" Roentgen is supposed to have replied, "I did not think, I experimented." Then ask boys and girls if, on the basis of this brief sketch, they think this remark characteristic of Roentgen.

Bring out the fact that many of the improvements and discoveries of service to mankind may result from accidents such as the one described in this selection. However, the knowledge, research, and hours of experimentation required before a discovery can be put to practical use are far from accidental. In this connection, ask pupils to explain the meaning of such phrases as "toiling with all the concentration of genius" (page 366) and "threw himself heart and soul into everything he attempted to do" (page 366). To extend the meaning of these phrases, have various members of the class tell how these words might describe the efforts of the other men read about in this unit. Remind pupils of the famous remark attributed to Thomas Edison: "Genius is 1 per cent inspiration and 99 per cent perspiration" and have boys and girls tell which of the men read about in this unit they think would have agreed with Edison's definition of *genius*.

Next, call attention to the fact that the author, Mr. Wallace, has selected one of the most dramatic events in Roentgen's life and, through the description of this incident, has revealed Roentgen to the reader. Then, to give a more complete picture of Roentgen's discovery and his life, the author has gone beyond the incident of the actual discovery of the use of X rays to tell about the effects of this discovery on the world and of the

acclaim the world gave the scientist. Correlate these two points of discussion in the story by having the last sentence of the selection read aloud. In conclusion, turn the discussion to the honors and recognition that Roentgen received during his lifetime and then lead class members to recall the preceding selections in this unit and compare the recognition and honors that were given Gutenberg, Leeuwenhoek, Pasteur, Long, and Morton with the acclaim given Roentgen.

EXTENDING SKILLS AND ABILITIES

Identifying the author's organization of ideas . . . This lesson is designed to promote the ability to identify an author's pattern of thought or organization of ideas. Through guided discussion lead pupils to recall how some of the other authors in *WONDERS AND WORKERS* have organized the ideas presented in various selections. ("Plasma: Medical Wonder of Today"—*time arrangement*, "Outdoor Sleuthing"—*general-specific arrangement*, etc.) Then ask members of the class to skim "The World's Greatest Detective" and review with the group the major ideas presented and the order of their presentation. Questions such as the following will aid in guiding the discussion:

What is the first main idea discussed by Mr. Wallace? (He tells of Roentgen's discovery of the properties of X rays.)

What is the reader told about in the last paragraph on page 367 and in the first paragraph on page 368? (Some of the general uses of Roentgen's discovery are mentioned.)

How does the remainder of the selection add to your knowledge of Roentgen and the way in which the world showed its appreciation for his work? (The author discusses the honors that were bestowed on the scientist.)

Lead pupils to discover that this selection falls into three very distinct divisions—as brought out in the discussion of the questions given above. Then emphasize that the author begins with a specific incident, leads into a general discussion of the practical uses to which this discovery has been put, and concludes by giving the reader a telescoped view of the way in which the world reacted to Roentgen's service to mankind.

Adapting definitions to context . . . This exercise is designed to promote further the ability to adapt defined meanings to context. Write the following sentences on the blackboard, underlining the boldface words.

Then ask pupils to find the definitions for each of the words in the Glossary and rewrite the sentences without using the underlined words.

The solving of scientific problems requires a great amount of *concentration*.
Roentgen *ascertained* why the shadow of the key was reproduced on the photographic plate.

The X ray gives the surgeon an *unerring* guide.

Monuments were erected in *commemoration* of Roentgen's service to humanity.

In surgical operations ether is sometimes used as an *anesthetic*.

Think-and-Do Book . . . Use page 81.

EXTENDING INTERESTS

Extending concepts . . . Pupils might be interested in finding and reporting on other biographical material about men and women who have made lasting contributions to the welfare, happiness, or comfort of mankind. In addition, suggest that several boys and girls do research work on the lives of those discoverers and inventors who received acclaim posthumously but whose lives were filled with poverty and worry because their genius was unrecognized. The members of the class might, for example, choose such men and women as Christopher Columbus, Franz Schubert, Stephen Foster, Louisa May Alcott, Clara Barton, etc., as the subjects for brief oral biographies.

Extension reading . . . Class members may have been stimulated by this selection to think of careers in science. Pages 109-121 of *Medical Occupations Available to Boys When They Grow Up*, by L. M. Klinefelter, tell about work with X rays. Encourage boys and girls to read the biographical books that are suggested in the Bibliography on page 523 of *WONDERS AND WORKERS*. Pupils might especially enjoy *Invincible Louisa*, by Cornelia Meigs.

Sharing information . . . Pupils might share information they have about electricity and the use of X rays with those members of the class who are not familiar with the principles of these great wonders. Since this is a very technical subject, make sure that boys and girls explain what they know in the simplest possible terms.

George Washington Carver

PREPARING FOR READING

It would be unfortunate to classify the great inventors of our world as men who achieved success despite all obstacles and many handicaps. However, it is important to realize that the courage, persistence, and patience these inventors developed as a result of accepting, ignoring, or rising above the handicaps of poverty, prejudice, and poor health made them into finer human beings as well as great inventors. Reading the background note on page 508 will extend this theme and will introduce the story of George Washington Carver.

EXTENDING INTERPRETATION

Since this story presents a vivid personality study of George Washington Carver, pupils might first be asked to recount the aspects of Carver's life that seemed most interesting or most commendable to them. After this informal discussion, the teacher might use the following questions to emphasize some of the most important qualities revealed in this sketch of the scientist: "What character traits are revealed by the shabby clothes that Carver wore even after he had become famous? What character traits are shown by his refusal to accept the vast sums of money that were offered him? Do you think he was right in refusing? What could he have done with the money, had he accepted it?"

Lead boys and girls to sense some of the difficulties that Carver faced by having them cite specific instances of discouragement that he experienced. Ask them to reread the paragraph beginning on page 373 and ending at the top of page 374 and explain what this tells about Carver's source of strength and persistence in the face of discouragement.

In subsequent discussion, direct attention to Carver's efforts to help his fellow men. In this connection, lead pupils to cite incidents in the story that reveal Carver's efforts to help the people of his own race and incidents that bring out his appreciation and gratitude for the help and kindness that others not of his race showed him.

Enrich the discussion of Dr. Carver's work and discoveries by encouraging pupils to give examples of the scientist's vast range of creativeness (cooking, sewing, painting, music, teaching, research)—nothing was too humble and nothing was too vast for Carver to attack. Emphasize that his great work has inspired a remarkable search for "making something out of nothing or next to nothing." Ask members of the class to suggest other common things or foods that have recently been used as the basis for the manufacture of numerous articles; for example, soy beans, coal, coffee beans, plant fiber, milk, etc.

EXTENDING SKILLS AND ABILITIES

Using background notes . . . Remind the boys and girls that since the biographies in this section of the book are about scientists, they contain technical as well as historical information that pupils are not likely to know. Therefore, the Help Yourself section is especially valuable as a source of information. To check the use of this aid, write the following sentences on the blackboard and ask members of the class to tell whether or not they are true and to give reasons for their answers. Suggest that they skim the Help Yourself notes to verify their responses.

1. The okra plant has properties which are desirable for making rope.
2. The Grand Cross of the Legion of Honor was not intended by the French government to be awarded to such private citizens as Pasteur.
3. X rays gained their names because their nature was unknown.
4. Tuskegee Institute is a private college preparatory school in the South.
5. "Illuminated letters" were used in Gutenberg's time, long before the days of electricity.

Think-and-Do Book . . . Use pages 82, 83, and 84.

EXTENDING INTERESTS

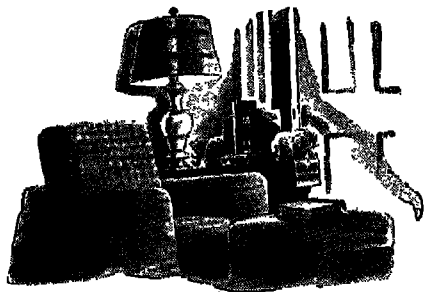
Extension reading . . . Recommend the following: *Dr. George Washington Carver*, by S. Graham and G. D. Lipscomb; pages 139-158 of *Twenty Modern Americans*, by A. C. Cooper and C. A. Palmer; and pages 147-162 of *Modern Americans in Science and Invention*, by Edna Yost.

Call pupils' attention to the reference to Booker T. Washington made on page 508 of the Help Yourself notes. Suggest that boys and girls read the autobiography *Up from Slavery* for additional information about this educator.

EXTENDING THE UNIT THEME

Discussing biographies . . . Invite pupils to discuss some of the interesting biographies they have been reading. As the various books are discussed, write the titles and names of the authors on the blackboard. Informal discussion of these biographies may be supplemented by having volunteers give brief book reviews. Preferably, any review should consist of a pupil's honest appraisal of a book together with a few sentences indicating why the subject of the biography was an interesting and important person. A list of good biographical books might be posted on the bulletin board.

Writing biographies . . . On the basis of the discussion and book reviews, each class member might be asked to write a brief biography of some person whom he admires, whether famous or not, bringing out any quality or contribution which is especially attractive or noteworthy. Tell pupils that if the individuals they choose to write about are well known locally, they may find such sources as the local newspaper or library very useful. For generally well-known people, the usual reference materials are sufficient.



Familiar Favorites *by Master Writers*

TODAY'S BOYS AND GIRLS . . . even with the many diversions available to them, are like those of all past generations in their keen enjoyment of good stories. In this unit pupils will discover the satisfactions that only the best literature can supply in full measure. Among the masterpieces of storytelling included are: a strange and gripping adventure of Ulysses as recorded by Homer and retold by Charles Lamb; a famous riddle "The Lady or the Tiger?" contrived with teasing appeal by Frank R. Stockton; an absorbing adventure in crime detection by Sir Arthur Conan Doyle's master sleuth, Sherlock Holmes; Robert Browning's galloping verse-story of the life-and-death ride from Ghent to Aix; and Washington Irving's madcap legend of the headless horseman of Sleepy Hollow.

Besides their rich offering of superb stories, the authors of these literary masterpieces introduce pupils to characters whose names have long been famous the world over. The crafty Ulysses, the astute Sher-

lock Holmes, the befuddled Dr. Watson, Yussouf who was known as the good man of the desert, the foolish, superstitious Ichabod Crane—here are people whom pupils will remember the rest of their days.

Boys and girls will grasp, too, some idea of the craftsmanship of these master writers in artistically recreating significant human experiences. Under guidance, they will sense that "The Odyssey" is something more than an adventure story; it tells of human wit and guile pitted against cruel brute force. Longfellow's "Skeleton in Armor" is not just another ghost story; it is a tale which reveals the power of love. The riders in Browning's poem are not merely engaged in a determined race against time; they are answering the fine urge of human beings to aid their fellow men. In short, every author in this unit has something important to say about life, whether his characters are courageous or cowardly, wise or witless—and he says it in memorable language.

In studying these familiar classics by master writers, pupils will become aware of the richness of their literary heritage and will have an effective yardstick for measuring the merits of contemporary writers.

INTRODUCING THE UNIT THEME

To introduce the unit theme as expressed in the title "Familiar Favorites by Master Writers," have pupils look at the table of contents to see if they recognize any of the titles or authors of the selections. They may recall several of the stories, and the teacher should encourage discussion based on these recollections. The stories of "The Lady or the Tiger?" and *Christmas Carol* from which "The Cratchits' Christmas Dinner" was taken, have been portrayed in the movies, and there are few children who have not heard a radio adaptation or seen a movie version of Sherlock Holmes' adventures. Henry Wadsworth Longfellow and Washington Irving should be familiar, also, since most pupils may have read Longfellow's "Paul Revere's Ride" and Irving's "Rip Van Winkle."

The boys and girls should be encouraged just to "talk" about stories or books that they remember as being especially interesting or enjoyable. This type of informal discussion often does much to stimulate a desire to read more and to seek a varied reading "diet." The teacher may also find that this discussion will indicate individual special interests that can be followed up with recommendations of other suitable stories.

Ulysses and the Cyclops

PREPARING FOR READING

The background note should be read as an introduction to this story. In addition, explain that Ulysses was probably a real man renowned for his skill and strength, but that no one knows how much truth there is in the age-old tales about him. One of the most familiar legends presents Ulysses as the man who devised the idea of building a wooden horse to deceive the enemy in the Trojan war. If pupils know this story, encourage their comments and then add that it was largely on the basis of this adventure that Ulysses was given the title of "the crafty Ulysses."

EXTENDING INTERPRETATION

To check pupils' ability to get an overall view of the story, have them discuss the main episodes: the incident with the Cicons, the episode with the lotus-eaters, the adventure with the Cyclopes. Then encourage class members to point out (1) the fabulous incidents in these adventures and (2) the references or descriptions that reflect ancient Greek life and customs (methods of travel, hospitality to strangers, methods of warfare, etc.).

Next, lead into a discussion of why this story has been popular with people through many generations; i.e., it mingles ordinary human beings and fantastic mythological creatures; it is the story of the smaller man who outwits his larger and stronger opponent; it is a story filled with vivid descriptions and blood-curdling details.

Draw attention to the character of the hero by having boys and girls locate incidents in the story that show Ulysses' craftiness or cunning. Bring out in this conversation the preparations Ulysses made before investigating the land of the Cyclopes, the trick he used to keep the other Cyclopes from coming to the aid of Polyphemus, etc. To clarify further pupils' impression of the characters in this story, ask such questions as: "Was Ulysses' leadership based on physical strength or superior intelligence? In what incidents did the sailors prove themselves foolhardy? How did Polyphemus and Ulysses differ?"

Then have class members skim the story and note how the weather is used as an important factor in determining story events. For example, at the beginning of the story the reader is told how Ulysses and his men "were cast by ill wind upon the coast of the Cicons." In connection with this discussion, lead pupils to note also the references to the Roman gods and the influence these gods were thought to have on the course of men's lives. Conclude by explaining that in the full account of the adventures of Ulysses, the giant had his revenge by asking the Roman god of the sea, Neptune, to stir up the waters so that Ulysses could never make his way home to Ithaca. The sea god fulfilled part of the request by forcing Ulysses to wander for another ten years before reaching Ithaca.

EXTENDING SKILLS AND ABILITIES

Comprehending definitions . . . To check pupils' use of the Glossary and the Help Yourself notes in deriving the meanings of words encountered in reading this story, write the following questions on the blackboard. Ask members of the class to answer them and to give reasons in support of their answers. If there are any differences of opinion as to the answers or the reasons, suggest that the underlined words or phrases be looked up in the Glossary or the Help Yourself notes.

1. Is cannibalism an *abhorrent* custom?
2. Did Ulysses intend to be *ambiguous* when he used the name "Noman"?
3. Had Ulysses and his men intended to *double the Cape of Malea*?
4. Was Ulysses *constraining* his men when he made them leave the land of the lotus-eaters?
5. Was Polyphemus a *benefactor* to Ulysses and his men?

Think-and-Do Book . . . Page 85 is based on William Cullen Bryant's poetic version of Ulysses' visit to the land of the lotus-eaters.

EXTENDING INTERESTS

Creative art . . . Since this story is one that lends itself well to illustrations, the teacher might ask, "If you were going to draw or paint a picture based on this story, what would you show in it?" The answers should be both varied and interesting and should include descriptions of the main characters as well as the setting and the action of the story. It might also be suggested that a sequence of pictures be planned to tell of the various lands that Ulysses visited.

Preparing reports . . . Homer, the author of *The Iliad* and *The Odyssey* is an excellent subject for a report, and the teacher might suggest that one or two boys and girls refer to encyclopedias for the information listed under that author's name and the names of his books.

Extension reading . . . Suggest these books: *Odyssey for Boys and Girls*, by Alfred J. Church; *The Odyssey*, translated by George H. Palmer; and *Children's Homer. Adventures of Odysseus and the Tale of Troy*, by Padraic Colum.

4 PAGES 387-393 ▶

The Skeleton in Armor

PRESENTING AND INTERPRETING THE POEM

The teacher might introduce this poem by having boys and girls read the background note on pages 510-511. This note sets the scene and gives the reader an understanding of the origin of the poem's theme.

There are a number of difficult expressions in this selection which the teacher may wish to explain before class members begin their silent reading. Such expressions as the following might be written on the blackboard with the meanings shown in parentheses: *Eastern balms* (means of preserving a body), *skald* (Scandinavian poet and singer of ancient times), *saga* (story of marvelous adventure), *gerfalcon* (large hawk of northern regions), *corsair* (pirate), *wassail-bout* (drinking party), *berserk* (fierce Norse warrior), *sea mew* (gull), *flaw* (sudden gust of wind), *cormorant* (large, greedy sea bird), *fen* (swamp). Call attention to these definitions and explain that they may be helpful in interpreting the poem. Encourage the boys and girls to read the selection with the idea of recapturing Longfellow's mood as he imagines a conversation with the ghostly skeleton in armor.

Before a general discussion of the poem, ask pupils if there are any passages that they would like to have explained. For example, the first complete stanza on page 391 is difficult because of inverted sentence structure—it gives a picture of the maiden's father as he laughs scornfully

with the drinking-horn at his lips, thus blowing foam from the liquid. To clarify the plot of this narrative poem, the teacher might then ask boys and girls to give a brief résumé of the story.

To draw attention to the details of the narrative, comment, "As the warrior begins his story, he tells Longfellow that there will be a curse on the poet if he does not write a poem about the Viking's tale. What do you think the poet wants us to think compelled the ancient Norseman to reappear in ghostly form to make his story known far and wide?" Guide the ensuing discussion to bring out that the warrior yearned to tell of his deep love for his wife, for as yet no skald had immortalized his deed in song. Lead pupils to contrast the adventure and the mood of bravado that pervades the beginning of the poem and the note of pathos on which it ends. To bring out the element of high tragedy with which Longfellow closes the poem, ask, "Why do you think the warrior took his own life?" The boys and girls should see that this story is as romantic and as exciting as any of the stories recounted by the ancient skalds—but that it is based on the romantic imaginings of the poet, not on the deeds of a legendary hero.

ORAL INTERPRETATION

Since this is a rather long poem with many difficult words and run-over lines, the teacher should first read it aloud to the class. She might then suggest that pupils read aloud any portions of it that especially appeal to them.

EXTENDING INTERESTS

Preparing a biography . . . Remind pupils that Henry Wadsworth Longfellow was a famous American poet and suggest that members of the class look up his biography in an encyclopedia or some other reference book and make a brief report. Pupils might also be referred to *The Poet of Craigie House; The Life of Henry Wadsworth Longfellow*, by Hildegard Hawthorne, as a source for information and as a very interesting biography.

The following narrative poems by Longfellow might also be read: "The Children's Hour" and "Hiawatha's Childhood," both in *My Poetry Book*; "Excelsior" and "The Village Blacksmith," both in *The Home Book of Verse for Young Folks*.

The Lady or the Tiger?

PREPARING FOR READING

Introduce this story by telling the class that "The Lady or the Tiger?" is one of the most famous short stories of all time. Then ask boys and girls to read the background note on page 511 as a direct lead into the story.

EXTENDING INTERPRETATION

Initiate discussion by asking such questions as: "Why do you think 'The Lady or the Tiger?' is such a famous short story? Have you decided which came out of the door, the lady or the tiger? What makes you think you will never be able to decide? Why will you remember this story longer than some of the others you have read?" The teacher might next ask pupils to find passages in the story which seem to indicate that the tiger came out of the door and those that suggest that the lovely lady might have stepped forth. Discussing these passages in a group situation will emphasize that there is and can be no indisputable answer to the teasing question. The teacher might here point out that it is the author's purpose to get the reader to think back over the story in his attempt to solve the question; and the reader finds that he never settles the question to his own satisfaction—it remains to plague him each time the story is mentioned or reread.

Since the analysis of the Princess' character is the keynote of this selection, pupils might skim to find the specific qualities with which the author endows her; for example, the Princess is described as proud, determined, realistic, jealous, and strong-willed. To clarify this characterization, ask such questions as: "What do these things tell you about the Princess as a person—the fact that she learned the secret of the doors, the fact that she fell in love with the young courtier of low station, the fact that she attended his trial?"

Next highlight the character of the King and his ideas of justice by asking, "What words would you use in describing the King? What makes you think the King believed the trials in the arena were fair and impartial?"

Do you think the author believed that the King was a fair person? What leads you to think as you do?" If boys and girls do not point out the author's use of irony, the teacher should call attention to such sentences as: "Its [the trial's] perfect fairness is obvious," "There was no escape from the justice of the King's arena." In conclusion, encourage pupils to tell why they think the people enjoyed these trials and to give their own opinions of this method of administering justice.

EXTENDING SKILLS AND ABILITIES

Noting cause-effect relationships . . . Place on the blackboard the following unfinished sentences and ask pupils to complete each sentence by giving a cause of the effect stated. Consider these completions orally since class members may have more than one suggestion for a sentence.

The lover strode confidently toward the two doors because_____.

Actually the trials were entirely fair since_____.

The King enjoyed the trials because_____.

The Princess came to the trial of her lover because_____.

The people were especially interested in the trial because_____.

The most ferocious lion and the loveliest maiden were chosen to stand behind the doors because_____.

Think-and-Do Book . . . Use page 86.

◀ PAGES 420-426 ▶

The Adventure of the Blue Carbuncle

PREPARING FOR READING

Since most boys and girls have doubtless heard of that super-detective Sherlock Holmes through reading stories or hearing radio presentations of his adventures, encourage brief comments about him and about his companion, Dr. Watson. Then as a direct lead into the story, suggest the reading of the background note on page 512 for additional information about Holmes, Dr. Watson, and the blue carbuncle. In addition, tell pupils that they will find the explanations given in the Help Yourself notes particularly useful as they read this selection.

EXTENDING INTERPRETATION

Pupils' comments on the story may be brought about by asking if they think Sherlock Holmes was justified in releasing the criminal. Individual opinions should be respected, but it is important that pupils point out Holmes' own reasons for reaching his decision. Even though a class member may say that the detective should have let the police handle the problem of releasing the thief, bring out the fact that since no one had been injured, Holmes felt that he had the right to be merciful without fear of doing an injustice to society. He also thought Ryder was so frightened that he would not do wrong again and if sent to jail, he would become a jailbird. To extend this discussion suggest that boys and girls compare Holmes' idea of fairness with that of the King's in "The Lady or the Tiger?"

In this, as in all detective stories, the sequence of events is important. To focus attention on this sequence, have several class members relate the incidents that led to the final solution. The following incidents in the order indicated should be among those chosen:

1. Peterson brings the goose and the hat to Sherlock Holmes.
2. Peterson brings the blue carbuncle to Holmes.
3. Holmes advertises for the man who lost the goose.
4. Henry Baker comes to Holmes and gives information about Alpha Inn and eliminates himself as a suspect.
5. Holmes and Dr. Watson visit Alpha Inn and are told where the geese were purchased.
6. Holmes and Dr. Watson hear an argument in front of the Covent Garden market.
7. Ryder is identified and taken to the Baker Street apartment.
8. Ryder provides the missing links in the explanation of the theft.

In their retelling, pupils might include, as one of the steps leading to the solution of the crime, the detective's deductions from the hat that was brought to him. Class members should be led to see that although these deductions give insight into Holmes' method of making inferences from small details, the finding of Henry Baker was actually accomplished by the advertisement in the paper. Through the inferences that Holmes made from the hat, however, the author indicates the power of keen observation and resourcefulness and the ability to interpret clues that Holmes used so profitably when he dealt with people. The way in which this knowledge of people helped him solve the crime might be brought out by

questions similar to the following: "What methods, besides that of asking direct questions, did the detective use to obtain information about the goose? [He knew when to compliment, when to wager, when to bluff, when to listen.] What information did he obtain by using these various techniques? Do you think he would have been just as successful had he used only the direct question method? Why or why not?"

In discussing Holmes' solution of the crime, encourage comments on the part Dr. Watson plays in the story. The teacher might ask the boys and girls what part Dr. Watson plays in setting the scene, in describing the detective, and in drawing from Holmes his reasons for the deductions he made. As pupils give their answers, suggest that they skim the story and find places where the reader is informed of things or occurrences solely through Dr. Watson's observations or questions. Conclude the discussion by asking, "How does Dr. Watson's bewilderment over the meaning of clues help us appreciate the characterization of Holmes?"

EXTENDING SKILLS AND ABILITIES

Making inferences . . . This lesson is designed to check pupils' ability to make inferences about story characters—their actions and their motives. Have members of the class turn to page 403 and reread the lines beginning, "He raised his stick . . ." and ending on page 404 with "took to his heels, and vanished." Then ask, "Why do you think Peterson ran when he saw the official-looking person?" It should be brought out that Peterson probably thought the commissionaire was a policeman who would arrest him and force him to pay for the broken window. Continue in the same manner with the following passages and questions:

Paragraph 5, page 411—"What inference would you make about Sherlock Holmes after reading this paragraph?"

Paragraph 5, page 419—"Why do you think Ryder turned pale when Holmes tapped him on the shoulder?"

Paragraphs 4-7, page 426—"Even though Holmes let Ryder go free, how does this passage show you how Holmes felt about Ryder as a person?"

Paragraph 8, page 426—"What can you infer from these lines about Ryder's feelings when Holmes did not report him to the police but let him leave Baker Street a free man?"

Think-and-Do Book . . . Use pages 87, 88-89, and 90.

EXTENDING INTERESTS

Using reference materials . . . For information about the origin and long history of the Sherlock Holmes stories, refer pupils to the *Readers' Guide to Periodical Literature*. If a copy of *Life* magazine for May 1, 1944, is available, some class members might read the article on Sherlock Holmes and prepare to report to the others in the class about Holmes' first appearance, his death struggle with "the most dangerous man in London," and his revival ten years later by popular demand. Pupils might also be interested in learning about the group of literary men who comprise the Baker Street Irregulars and who insist that Holmes actually did exist.

Extension reading . . . For those members of the class who enjoy reading mystery stories, suggest these books: *The Boys' Sherlock Holmes*, by Sir Arthur Conan Doyle, and *Mystery Tales for Boys and Girls*, selected by Elva S. Smith and Alice I. Hazeltine.

◀ PAGES 427-429 ▶

How They Brought the Good News from Ghent to Aix

PREPARING TO PRESENT THE POEM

As is suggested in the background note, this poem is an expression of rapid movement, action, haste, struggle. In preparing to present it, the teacher should study the rhythm until she senses the relationship between the words and the galloping beat—being careful not to drown out the meaning by overemphasizing the rhythm.

PRESENTING AND INTERPRETING THE POEM

In the presentation of this selection, refer pupils to the background note on page 515 and then give the pronunciations of such names as *Lokeren*, *Düffeld*, *Mecheln*, *Aershot*, *Hasselt*, *Looz*, *Tongres*, and *Dalhem*, which are listed in the Pronunciation of Proper Names section.

The teacher should then present the auditory pattern and the tempo of this selection by reading aloud the first stanza. Next, suggest that although

this is a poem of movement and speed in which the tempo is obvious, pupils should think in sentences when they read it.

After the silent reading, boys and girls will probably want to comment on the horse, Roland, and on the love and admiration the rider felt for his gallant steed. Point out that the poet's portrayal of the heroism of the great horse—straining at every nerve, never seeming to falter, and encouraged by his master's praises—is the very heart of the poem. In this connection, pupils might bring out what Roland's rider did to encourage his horse and the ways in which he showed his concern for the animal. Invite comments on how the ending of the poem centers on Roland's heroism and somewhat minimizes the success of the mission. Members of the class might also be given opportunity to tell of horses about which they have read or ones which they have actually known and liked.

Then lead pupils to see how the rhythm of the lines adds to the drama of the poem by portraying the tremendous effort the horses exerted and the intensity with which the men strove to complete their venture. In conclusion, ask pupils to name other poems in which the galloping rhythm has played a similar part—"Paul Revere's Ride," "The Highwayman," and "John Gilpin."

ORAL INTERPRETATION

Because of the difficult place names and the regular rhythm, the teacher might first read the poem aloud to the class. Boys and girls, however, will enjoy giving their own oral interpretation of this selection, and individual pupils should be given an opportunity to do so. Remind class members that in their oral reading the rhythm should help clarify the meaning—it should not draw the listeners' attention away from the meaning of the poem.

EXTENDING INTERESTS

Enjoying poetry . . . Other poems by Robert Browning, some of which pupils may already know but will enjoy reading again, are: "Hervé Riel" and "Incident of the French Camp," both in *The Home Book of Verse for Young Folks*; "The Pied Piper of Hamelin," in *Golden Numbers*; and "Pippa's Song," in *My Poetry Book*.

The Cratchits' Christmas Dinner

PREPARING FOR READING

Suggest that class members read the background note on page 515 and encourage any comments they might wish to make about the characters, the events, or the radio presentations of the *Christmas Carol*. If the visits of the three ghosts are not mentioned, the teacher should explain that in the complete *Christmas Carol*, the Ghost of Christmas Past, the Ghost of Christmas Present, and the Ghost of Christmas Yet to Come take Scrooge on visits to the homes of various people where, unseen by his hosts, he watches their actions and hears what they say. It is while Scrooge is with the Ghost of Christmas Present that he visits the Cratchit family and sees how they spend their holiday.

EXTENDING INTERPRETATION

To initiate discussion of this selection and to bring out clearly the warmth and feeling of Dickens' presentation, the teacher might ask questions similar to the following: "Why was the Cratchits' Christmas dinner such a merry one? What passages in the story might lead you to think it would have been a less happy occasion had Martha or Tim or Father been unable to be present? Do you think the members of the Cratchit family felt sorry for themselves? On what do you base your opinion? What is the most humorous detail in this selection? Explain your choice."

Because this is primarily a selection of description, invite comments on the individual members of the Cratchit family by explaining that Charles Dickens has drawn pictures of these people in an indirect way—not merely by giving detailed word descriptions of each person's appearance, personality, and qualities. Suggest that pupils skim the actions described or the statements given in the story to find evidence of characteristics that various members of the Cratchit family apparently possessed. For example, Martha's consideration of others—shown when she came out from hiding so that her father's disappointment would not continue; Tiny Tim's religious nature—indicated when he wished that people would see him so

that they would remember Jesus; Mrs. Cratchit's self-respect—shown when she fixed her dress with ribbon; etc.

To extend the interpretation and to encourage comments on the complete *Christmas Carol*, ask what part boys and girls think this Christmas party might have played in changing Scrooge's attitude toward Christmas. Include in this discussion any of the points about the entire *Carol* that the class members recall and emphasize that even the brief scene covered by this short selection—a scene filled with the jollity, merry-making, and affection of the Cratchits—might have been enough to show bitter, unhappy Scrooge the value of being a charitable and generous person.

EXTENDING SKILLS AND ABILITIES

Identifying characteristic expressions . . . To promote the ability to identify and appreciate elements of style, explain that Charles Dickens was an English writer and that since he wrote of England in the 1800's, there are many words and phrases that may be unfamiliar to American boys and girls. Ask pupils to find some of the characteristic expressions and to paraphrase them in their own words; for example, "dressed out but poorly in a twice-turned gown," "make a goodly show for sixpence," "she laid the cloth," "We'd a deal of work to finish up."

Promoting vivid imagery . . . Ask members of the class to find examples of phrases or sentences in this selection that appeal to the senses of sight, hearing, smell, or taste. As each phrase is suggested, write it on the blackboard and have the boys and girls note which sense is appealed to in every instance. Some of the sentences and phrases which may be suggested are given below for the convenience of the teacher.

"Mrs. Cratchit made the gravy . . . hissing hot. . . ." (page 433)

"A smell like an eating house and a pastry cook's next door to each other, with a laundress' next door to that! That was the pudding!" (page 434)

". . . Mrs. Cratchit entered . . . with the pudding, like a speckled cannon ball, so hard and firm, blazing in half of half-a-quarter of lighted brandy and bedight with Christmas holly stuck into the top." (page 435)

". . . the chestnuts on the fire sputtered and cracked noisily." (page 435)

Think-and-Do Book . . . Page 91 of the THINK-AND-DO BOOK provides the opportunity for boys and girls to meet the famous Scrooge from Dickens' *Christmas Carol*.

EXTENDING INTERESTS

Extension reading . . . There are many books by and about Charles Dickens that pupils may wish to read; for example, *David Copperfield*, which tells how David Copperfield, who was Dickens himself, grew up in nineteenth-century England, and *Introducing Charles Dickens*, by May Lamberton Becker, an inspiring biography of the famous author.

Planning a party . . . Using the Cratchit story as an example of a pleasant party, suggest that pupils plan a class party that would involve a minimum of expense and afford a maximum of enjoyment. The teacher might suggest that pupils refer to *Let's Play The Game*, by Clement Wood, or *Fun for the Family*, compiled by Jerome S. Meyer, for directions for playing a variety of enjoyable games. Then time might be allowed for several boys and girls to act as "host" or "hostess" to familiarize the others with the party games.

◀ PAGES 436-437 ▶

Yussouf

PREPARING TO PRESENT THE POEM

James Russell Lowell was more than a poet—he was also a distinguished essayist, critic, and public servant. The breadth of his horizons is indicated by his appointment first as United States minister to Spain and later as minister to England. His poems are delightful in their variety, their style, their humor, and their thoughts. In the poem "Yussouf" we find Mr. Lowell in a philosophical mood as he presents an ancient desert custom to illustrate a moral principle. The teacher might first read the poem silently and then aloud; since much of the poem is told in dialogue and in Biblical language, oral reading will both clarify its meaning and intensify its beauty.

PRESENTING AND INTERPRETING THE POEM

Tell pupils a little about James Russell Lowell—that he was well known in the last century as a poet and essayist, as a teacher of languages at Harvard, and as an ambassador to Spain and later to England. Mention

that many of his poems are humorous ones, written in New England dialect, but that this one is completely different in tone. Have boys and girls read the background note on page 516; then ask, "Can you see why a law requiring that a stranger always be welcomed and cared for should develop on the desert? What might happen to a person if he were turned away?" Members of the class should then read the poem to see why Yussouf was justly called "The Good."

Encourage discussion of the theme of the poem by asking such questions as: "How was Yussouf's revenge an unusual one? Do you think the expression 'Revenge is sweet' would apply in this case? Why or why not?" Elicit that Yussouf did more than "get even," for by his kindness, generosity, and forgiveness he stirred the man who was the object of his revenge to repent and to acknowledge the wrong he had done. If pupils do not grasp this idea, point out the following lines and through discussion clarify their meaning:

*"As one lamp lights another, nor grows less,
So nobleness enkindleth nobleness."*

Then call attention to the line "My one black thought shall ride away from me" and ask pupils to tell what they think Yussouf meant by this. It should be brought out that the harboring of bitterness and the longing for revenge can and often does ruin people's lives. But Yussouf rid himself of his bitterness by his forgiveness of the man who had caused it.

ORAL INTERPRETATION

"Yussouf" will be clarified by oral reading. Remind pupils to read with the idea of bringing out meaning, especially where sentences are inverted. Point out that the poet's style adds dignity which should not be overlooked in oral reading.

EXTENDING INTERESTS

Enjoying poetry . . . Read aloud to the class James Russell Lowell's "The Courtin'," a humorous poem written in New England dialect and found in *I Hear America Singing*. Suggest that pupils also read such other poems by Lowell as: "A Day in June," in *Poems for Modern Youth*; "Lincoln," "The Fatherland," and "The Shepherd of King Admetus," all in *The Home Book of Verse for Young Folks*.

The Swineherd

PREPARING FOR READING

Stimulate interest by asking members of the class to recall stories by Hans Christian Andersen. If pupils do not mention "The Ugly Duckling," "The Little Match Girl," and "The Princess and the Pea," remind them that these are some of the well-known stories by this author. Then suggest that they read the background note for a hint about the unusual ending of this selection and as a direct lead into the story.

EXTENDING INTERPRETATION

Since the basic theme of the selection is the importance of having a correct sense of values, begin discussion by asking such questions as: "Why did the Prince decide not to marry the Princess to whom he had once proposed? Basing your judgment on the Princess' actions and remarks throughout the story, what do you think was wrong with her sense of values—that is, the things she considered important?" Bring out that the Prince did not approve of the Princess' preference for insignificant and false things to the genuine, worth-while values of life. Be sure that pupils point out evidence of the Princess' twisted sense of values—she preferred a kitten to a rose whose fragrance "made you forget all your cares and troubles"; she wanted an artificial bird rather than a real nightingale in whose throat were hidden the most beautiful melodies in the world. Tell pupils that this story is a *satire*—a story in which sarcasm or irony is used to ridicule a habit, idea, custom, etc. Andersen is lampooning false values and the artificiality that often exists in high places.

At this time the teacher might clarify one way that Andersen uses satire to poke fun at the Princess and her friends: his habit of tacking on a remark which shows them up as foolish, idle creatures with no serious thoughts or accomplishments. Have boys and girls skim the story for examples of this technique; for example, when the author says that the Princess and her ladies in waiting were playing at receiving visitors, he adds, "they never did anything else"; when Andersen tells us the ladies

all spoke French, he tacks on the remark, "each one worse than the other"; and, finally, when the author reports that *Ach, du lieber Augustin* was the only tune the Princess knew, he laughs at this small accomplishment by adding, "and she played it with one finger."

Extend this interpretation by explaining that Hans Christian Andersen was an ugly man with an awkward, gangling body who spent many of his boyhood days pretending that he was an actor, a singer, a ballet dancer, and a poet. When he went away from home to seek his fortune, he was ridiculed and snubbed, and some people thought he was a little insane. But the story of his life ends happily, for his writing grew so popular that he became a very successful, renowned, and well-liked man. After giving pupils this brief sketch of Andersen's life, ask boys and girls in what way this and other fairy tales by Hans Christian Andersen reflect the hopes, disappointments, and experiences of his own life.

EXTENDING SKILLS AND ABILITIES

Noting details . . . Since this is a fairy tale, the teacher might suggest that pupils go through the story and pick out those expressions or descriptions that usually are present in a fairy tale or that could only exist in a fanciful story; for example, the story's first phrase, "Once upon a time. . . ." Others that may be included are: the description of a rose whose fragrance made you forget all your cares, the reference to a nightingale which could sing as though all the world's beautiful melodies were hidden in its throat, the mention of a pot that let you smell at once the foods being prepared in every kitchen in the town, the reference to a rattle which could let you hear all the waltzes, jigs, and polkas that had been known since the creation of the world, etc.

Think-and-Do Book . . . Use page 92.

EXTENDING INTERESTS

Extension reading . . . There are many books by Hans Christian Andersen that pupils should be encouraged to read: *The Snow Queen*, *It's Perfectly True*, and numerous collections of stories entitled *Fairy Tales*.

For those who would like to become acquainted with the sly satire of a modern tale teller, suggest *Fables for Our Time* and *Many Moons*, by James Thurber, and *Rabbit Hill*, by Robert Lawson.

The Legend of Sleepy Hollow

PREPARING FOR READING

Ask pupils to read and comment on the facts mentioned in the background note and give any additional information they may have about the author and his writings. Point out that this tale has some of the elements of a ghost story and suggest that the silent reading of the first three paragraphs of the legend will introduce the lonely locale and the spirit of witchery. A guided discussion of the ideas found there will help establish the mood and tone of this tale and will direct attention to Irving's powers of description. In guiding the discussion ask, "What one idea does the author stress in the first paragraph? What words or phrases does he use to build the feeling of quietness? What mood does the author set up in the second paragraph? What does he imply in the last two sentences on page 445? What does the third paragraph tell you?" Then suggest that as pupils read the entire "Legend of Sleepy Hollow" silently, they notice how the author conveys this ghostly mood and observe his ability to give the reader clear mental pictures of his characters and of the story events.

EXTENDING INTERPRETATION

Encourage pupils' reactions to the legend by asking such questions as: "What did Ichabod Crane think had happened to him as he rode home? What do you think really happened? Why was the schoolmaster so ready to believe in spirits and ghosts on that particular evening? Do you think the main reason Ichabod did not return to Sleepy Hollow was that he had lost the girl he loved? What do you think his real reason was? What effect do you think Ichabod's adventure had on the tales the villagers told after this happening?"

Following this initial discussion, the teacher might lead the members of the class in a guided rereading and interpretation of the story, stressing the many excellent descriptions and noteworthy details presented in the legend.

After a brief review of the ideas in the first three paragraphs, suggest that pupils reread the second paragraph on page 446. Follow this rereading with such queries as: "What picture does the author's description of Ichabod Crane make you see? Skim the pages of the story and find the artist's conception of Ichabod Crane's appearance. Does your mental picture of Ichabod agree exactly with the artist's interpretation of Washington Irving's description of the schoolmaster? How does it differ?"

Next have the first full paragraph on page 447 reread and ask, "What does this tell you about Ichabod Crane as a schoolmaster?" Have the rest of page 447 through the first paragraph on page 449 reread silently and then ask, "What insight do these paragraphs about Ichabod Crane's other activities give you into his character, his likes and dislikes, his gullibility, etc.?"

Then have the second paragraph on page 449 reread; follow this with the rereading of the first full paragraph on page 453. Suggest that the boys and girls compare these characterizations of Ichabod Crane and Brom Van Brunt to see how the author has portrayed the two distinct personalities—Ichabod's terror of the night compared with Brom Bones' love of frolicking, midnight dashes.

Page 450 through page 452 might be read next. The teacher should then proceed with questions similar to the following: "What picture did you get of the Van Tassel home from these paragraphs? Compare your ideas of the best parlor with the artist's portrayal. Why do you think Ichabod was so interested in marrying Katrina Van Tassel? What specific phrases or sentences in this section might lead you to think that Ichabod was more interested in the lands and the riches that Mynheer Van Tassel possessed than in his young daughter?"

The following questions might be used to guide the study of the last two paragraphs on page 453 through the first two paragraphs on page 454: "Which of the two suitors was the wiser in the choice of his courting techniques? What hint does the last paragraph give you as to what the outcome of this legend will be?"

Have various pupils retell the incidents of the party at the Van Tassel home. Point out the paragraph beginning at the bottom of page 456 and ending on page 457 which describes the "genuine Dutch country tea table" and ask pupils what idea this gives them of the life led by some of the early Dutch settlers of New York. Then have the boys and girls skim the

remainder of the selection and locate the section that seemed most humorous or most ghostly to them. If time permits, individual members of the class may read their favorite passages aloud.

Conclude the interpretation of this story with a brief discussion of how the "Legend of Sleepy Hollow" resembles or differs from some of the other selections in this unit. For example, the teacher might guide the conversation along the following lines: (1) Compare Irving's and Andersen's way of making a character seem ludicrous. (2) Ichabod *thought* he was crafty. Who was really crafty in the story? Name another crafty character in the unit. (3) What scene in the story reminds you of a scene in the story about the Cratchits? How does it differ? (4) What clues to the outcome of this story might have puzzled Dr. Watson?

EXTENDING SKILLS AND ABILITIES

Retention of details . . . To check pupils' retention of details, the teacher might ask such questions as the following about this unit. If boys or girls have difficulty in answering any one of the questions, suggest that they refer to the stories in the text.

1. Who was a King of Ithaca?
2. Who wrote the poem "The Skeleton in Armor"?
3. What is the name of the author who created Sherlock Holmes?
4. What was the name of a one-eyed race of giants?
5. In what selection was a man's fate decided by the opening of a door?
6. Who was Sherlock Holmes' close companion and friend?
7. Who retold the story of Ulysses' wanderings?
8. Who had three ghosts escort him on Christmas eve visits?
9. Who wrote the "Christmas Carol"?
10. What was the name of the schoolmaster of Sleepy Hollow?
11. Who among the desert tribes bore the name of "The Good"?
12. Who wrote "The Swineherd"?
13. Who liked to write about the legends of the region in which he lived?
14. Who was Ichabod Crane's rival for the hand of the heiress?
15. Who wrote the poem "How They Brought the Good News from Ghent to Aix"?

Think-and-Do Book . . . Use pages 93 and 94.

EXTENDING THE UNIT THEME

Summarizing the unit . . . One of the outstanding characteristics of master writers is their ability to re-create significant human experiences

and through these experiences to present the motives and influences that lead human beings to act in the ways they do. To clarify this idea and to summarize the selections in the unit, a procedure similar to the following might be used. Have pupils recall the poem "Yussouf" and ask such questions as: "On the basis of this poem why would you think that Yussouf was rightly called 'The Good'?" When, in their responses, pupils mention Yussouf's hospitality, extend the discussion to explain that though his offer of hospitality to a stranger was admirable his ability to forgive the man who killed his son made Yussouf a really great and good man. Boys and girls should see that in this poem, the poet has related a human experience and through it has revealed an essential quality of Yussouf's character.

Next, have members of the class recall the Princess in "The Swincherd" and ask: "Why do you think the Princess preferred the musical rattle and the pretty little pot to the rose and the nightingale?" In the discussion of this question, bring out that the Princess' sense of values was wrong—for she chose the insignificant and the false. Extend the discussion to include other characters in the selections of this unit; reference to the first paragraph on page 210 may aid the teacher in guiding the remainder of the discussion.

Discussing authors . . . Suggest that various class members find additional information about the master writers of their familiar favorites and prepare this information for oral reports. The teacher might provide a discussion period after the giving of these reports during which pupils should bring out the way in which the authors' lives have sometimes been reflected in the stories, books, and poems which they have written. For example, Washington Irving's knowledge of the Catskill-Mountain country and its folk tales is often reflected in the stories he wrote; many of Henry Wadsworth Longfellow's stories are set in New England, where he lived and grew up; Hans Christian Andersen's hopes and frustrations are frequently reflected in the action of his fairy-tale characters; etc. In learning about these authors, class members should also note the other famous selections which these men have written, and boys and girls should be encouraged to read any that might have special appeal.

Bibliography

SELECTIONS FROM OTHER READERS¹

Unit One—Living in America Today

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- "The Runt Comes Through," pp. 9-19, *The World Around Us* (V), Laidlaw, 1941.
- "The Track Star," pp. 109-119, "The New Outfielder," pp. 120-127, and "Betty Against the Current," pp. 140-155, *Days to Remember* (V), Rand, 1940.
- "Mississippi Stars and Stripes," pp. 273-280, *Wonder and Laughter* (IV), Silver, 1947.
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¹The difficulty of the selections from other readers is indicated for the teacher. Easy selections that can be read by even the very slow reader are not starred. A single star indicates selections of average difficulty which can presumably be read by any pupil who can read *WONDERS AND WORKERS*. Double stars mark selections intended only for superior readers.

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- *"Walter Reed," pp. 73-74, *Invitation to Reading*, Book Three (IX), Harcourt, 1945.
- ***"Silver Ships," p. 100, and "Aladdin Throws Away His Lamp," p. 187, *Adventures for Readers*, Book One (VII), Harcourt, 1947.
- ***"A Locomotive," p. 138, "Sky High," p. 139, and "Outboard Motor," p. 142, *The Brave and Free* (VI), Heath, 1942.
- ***"No, You Be a Lone Eagle," pp. 486-487, *Quest* (VII), Houghton, 1940.
- ***"I Like to See It Lap the Miles," p. 85, "Boy Aviator," p. 89, "Lost," p. 90, and "Whistle-Fantasy," p. 91, *Rewards* (IX), Houghton, 1940.
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Unit Four—Good Stories of Imagination

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- Unit: "Folk Tales and Fables," pp. 279-315, and "Mr. Halfpenny," pp. 349-359, *Journeys in Storyland* (IV), Macmillan, 1945.
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- *Unit: "Funny Fellows Along the Way," pp. 77-142, and "The White Pigeon," pp. 252-269, *High Road to Glory* (VI), Silver, 1947.
- *"The Palace Made by Music," pp. 253-262, "King John and the Abbot of Canterbury," pp. 263-266, "St. George and the Dragon," pp. 268-277, "The Shrewd Daughter-in-Law," pp. 284-286, and "The Blue Jackal," pp. 298-301, *The Firelight Book* (VI), Singer, 1946.

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- ***"The Fate of Melpomenus Jones," pp. 655-658, *Prose and Poetry for Enjoyment* (IX), Singer, 1942.

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- "Pirate Don Durk of Dowdee," pp. 56-57, *Highways and Byways* (VI), Houghton, 1943.
- "The Rain She Has a Silver Broom," p. 191, *Story Friends on Parade* (V), Macmillan, 1945.
- *"Tom Twist," pp. 30-34, "The Wagon in the Barn," pp. 366-367, *Merry Hearts and Bold* (V), Heath, 1942.
- *Unit: "Funny Side Up," pp. 269-280, *Conquest, Book One* (VII), Heath, 1946.
- ***"A Song of Sherwood," pp. 484-485, *Excursions in Fact and Fancy* (VII), Laidlaw, 1942.
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- ***"Robin Hood and Little John," pp. 123-127, "The Blind Men and the Elephant," pp. 127-128, and "The Height of the Ridiculous," p. 418, *Adventures for Readers, Book One* (VII), Harcourt, 1947.

Unit Five—Living in Other Lands

- "Strange Children of the North," pp. 361-372, *The World Around Us* (V), Laidlaw, 1941.
- "All Americans!" pp. 9-24, "Land of the Fairy-Tale Man," pp. 105-116, and "The First Dutch Day," pp. 119-128, *From Every Land* (VI), Laidlaw, 1941.
- Unit: "Uncle Sam's Children," pp. 363-423, *Exploring New Trails* (V), Lyons, 1945.
- "A Letter from Jimmy to Bill," pp. 233-238, "A Fascinating Country," pp. 240-248, "Mexico, D.F.," pp. 250-256, "Viva Mejico," pp. 258-263, and "Good Times in Mexico," pp. 264-269, *Traveling New Trails* (VI), Lyons, 1942.

- Unit: "Friends Around the World," pp. 49-96, *Journeys in Storyland* (IV), Macmillan, 1945.
- "The Swinging Bridge," pp. 80-84, "Kobi Becomes a Herder," pp. 105-114, "Not Such a Bad Thing After All," pp. 191-198, "The Seven White Cats," pp. 283-293, and "The Mischief of Chungo," pp. 300-313, *Wonder and Laughter* (IV), Silver, 1947.
- "Through the Fog," pp. 20-26, "The Quarry Cave Adventure," pp. 184-198, "A Donkey for Abdul Aziz," pp. 200-211, "On the Roof Top," pp. 214-228, and "Danger in the Forest," pp. 297-303, *Dreaming and Daring* (V), Silver, 1947.
- "The Black Pond," pp. 219-225, "The New Home with Grandfather," pp. 227-236, "The Storks Fly Home," pp. 243-250, and "Mikulás, Bearer of Gifts," pp. 307-317, *The Blue Sky Book* (V), Singer, 1946.
- *"Mama and the Idle Roomer," pp. 88-90, "Son of the Smoky Sea," pp. 142-158, "The Summer of the Beautiful White Horse," pp. 184-189, and "Vivas for Jorge Washington," pp. 343-345, *Within the Americas* (IX), Ginn, 1946.
- *Unit: "People in Far Places," pp. 303-351, and "The Mariner's Rock," pp. 507-518, *Invitation to Reading*, Book One (VII), Harcourt, 1945.
- **"Gift of the Forest," pp. 58-66, "For Sale—Dragon's Breath, Cheap," pp. 76-90, "The Long Night," pp. 91-101, "Thanksgiving Day," pp. 148-155, and "The Entry of Ramon," pp. 169-182, *Invitation to Reading*, Book Two (VIII), Harcourt, 1944.
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- *Unit: "People Overseas," pp. 246-281, "The Kiskis," pp. 437-442, and "Yes, Your Honesty!" pp. 442-447, *Adventures for Readers*, Book Two (VIII), Harcourt, 1947.
- **"Strange Waters," pp. 19-32, *Highways and Byways* (VI), Houghton, 1943.
- **"Spending a Day in an Igloo," pp. 391-399, and "I Choose a Vocation," pp. 403-423, *Quest* (VII), Houghton, 1940.
- **"Little People of Africa," pp. 73-86, "In a Chinese City," pp. 87-99, "Snow-Melting Games in Bulgaria," pp. 100-104, "Life in Buenos Aires," pp. 105-111, and "Mexico's Colorful Markets," pp. 112-119, *Setting the Sails* (VII), Rand, 1942.
- *Unit: "Journeys Around the World," pp. 81-180, *Prose and Poetry Journeys* (VII), Singer, 1945.
- **"The Costume Party," pp. 31-40, "Tinette and the Blue Sleigh," pp. 160-177, and "The Great City," pp. 190-199, *The Firelight Book* (VI), Singer, 1946.
- **"The Good River," pp. 15-28, *Prose and Poetry Adventures* (VIII), Singer, 1945.
- **"Joyful and Triumphant," pp. 107-118, *Discovery* (VII), Winston, 1946.
- *Unit: "Friends Abroad," pp. 277-336, *Exploration* (VIII), Winston, 1947.
- **"The Citizen," pp. 456-469, *Trails* (VIII), American, 1941.

- ***"Adventures in Africa," pp. 44-51, *Invitation to Reading*, Book Three (IX), Harcourt, 1945.
- ***"Chinese Festivals," pp. 287-296, *Ventures* (VIII), Houghton, 1940.
- ***"Paul Jaspersen's Masquerade," pp. 40-46, "One Uses the Handkerchief," pp. 145-156, "In the Beginning All Things Are Difficult," pp. 256-265, "Strange Scene in China," pp. 332-336, "Jungle Byways in India," pp. 339-345, "Falcon Feathers," pp. 529-541, "The Good River," pp. 547-555, "The Christ of the Andes," pp. 567-571, and "The Citizen," pp. 572-584, *Expanding Literary Interests* (IX), Laidlaw, 1942.
- ***"Suez—Ditch Between Two Worlds," pp. 424-427, *Understanding Literature* (VIII), Macmillan, 1944.
- ***"Young Fu Defies the Fire Demon," pp. 365-372, "Ghitza," pp. 373-381, "The Silver Mine," pp. 382-392, "Where Love Is, There God Is Also," pp. 394-403, and "Polonaise," pp. 405-419, *Interpreting Literature* (IX), Macmillan, 1943.

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- "A Feller I Know," pp. 484-485, *Quest* (VII), Houghton, 1940.
- "The Edge of the World," p. 86, *From Every Land* (VI), Laidlaw, 1941.
- ***"The Kayak," pp. 140-141, *The Brave and Free* (VI), Heath, 1942.
- ***"Mandalay," pp. 222-224, *Highways* (IX), American, 1940.

Unit Six—The Outdoor World

- "Oh, See the Elephants," pp. 3-13, "Circus Horses," pp. 20-26, "Lion Tamer," pp. 79-90, and Unit: "Safety Every Day," pp. 329-359, *Exploring New Trails* (V), Lyons, 1945.
- Unit: "Stories about Animals," pp. 157-195, and Unit: "Out-of-Door Stories," pp. 236-275, *Journeys in Storyland* (IV), Macmillan, 1945.
- "Avalanche Lily and Her Cubs," pp. 55-67, "Way-atcha, the Raccoon," pp. 68-81, "Sequoia, the 'Big Tree,'" pp. 83-93, "Handsome Heart," pp. 129-139, and "A Pet Rabbit," pp. 371-379, *Days to Remember* (V), Rand, 1941.
- "How Skookum Saved Sandy," pp. 2-8, "Fuzzy," pp. 55-60, and Unit: "Jointed Legs," pp. 290-317, *On to Adventure* (VI), Sanborn, 1943.
- "Ringtail Learns to Fish," pp. 2-7, "Timothy—the Story of a Deer," pp. 10-20, and "Why the Chickadee Goes Crazy Once a Year," pp. 34-37, *The Sunshine Book* (IV), Singer, 1946.
- *Unit: "Our Friends the Animals," pp. 377-432, *Doorways* (VII), American, 1941.
- ***"Some Nonsense about a Dog," pp. 177-180, *Within the Americas* (IX), Ginn, 1946.
- ***"Leopard on the Loose," pp. 19-34, Unit: "Outdoor Fun and Friends," pp. 189-245, "A Race Against Death," pp. 396-405, and "The Mariner's Rock," pp. 507-518, *Invitation to Reading*, Book One (VII), Harcourt, 1945.

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- *"I Fight Sharks," pp. 1-6, "Champion Fire 'n Feather," pp. 239-246, "A Secret for Two," pp. 248-252, "Roberto Meets a Bear," pp. 255-261, and Unit: "Nature Adventures," pp. 381-408, *Invitation to Reading*, Book Three (IX), Harcourt, 1945.
- *"Sancho," pp. 13-15, "Coaly-Bay, the Outlaw Horse," pp. 16-21, "Snapshot of a Dog," pp. 22-25, "The Mahogany Fox," pp. 26-32, "Bringing Up Kari," pp. 34-38, and "Animals Go to School," pp. 203-207, *Adventures for Readers*, Book One (VII), Harcourt, 1947.
- *Unit: "All Sorts of Animals," pp. 100-156, *Adventures for Readers*, Book Two (VIII), Harcourt, 1947.
- *Unit: "Personality in Animals," pp. 195-246, *Conquest*, Book One (VII), Heath, 1946.
- *"On Trial for His Life," pp. 88-95, "A Monkey in Manhattan," pp. 96-99, "Smoky Chooses His Master," pp. 100-105, "A Fight with a Whale," pp. 363-369, "With Helmet and With Hose," pp. 375-381, "Some African Experiences," pp. 382-386, "The Silver Fox," pp. 389-394, and "When the Stars Come Out," pp. 395-401, *Your World in Prose and Verse* (VIII), Laidlaw, 1942.
- *"Nibs, a Little Deer in the Adirondacks," pp. 174-178, "Black Miguel," pp. 180-185, "The Hawk That Went Exploring," pp. 186-192, "The Story of a Stone," pp. 472-475, "The Great Wanderer," pp. 477-480, and "The Spoonbill and the Cloud," pp. 482-485, *Appreciating Literature* (VII), Macmillan, 1943.
- *"Leopard on the Loose," pp. 3-11, "The Triumph of Scar-Face," pp. 224-231, "Brothering Fish," pp. 233-234, "Zedekiah," pp. 350-357, and "Bambi," pp. 545-619, *Understanding Literature* (VIII), Macmillan, 1944.
- *"The Fawn," pp. 9-19, *Setting the Sails* (VII), Rand, 1942.
- *"Go, Buck, Go!" pp. 3-8, "Coaly-Bay, the Outlaw Horse," pp. 9-19, "Under the Sea," pp. 71-76, "Trees for Profit," pp. 108-115, and "Gold in the Mountains," pp. 116-122, *Exploring New Fields* (VIII), Rand, 1942.
- *"Valiant Comrades," pp. 352-368, *High Road to Glory* (VI), Silver, 1947.
- *"The Unfriendly Arctic," pp. 178-186, *The Firelight Book* (VI), Singer, 1946.
- *"This Is Jody's Fawn," pp. 353-362, "The Lady or the Elephant," pp. 390-395, and "Thanksgiving Hunter," pp. 395-402, *Prose and Poetry Adventures* (VIII), Singer, 1945.
- *"The Most Dangerous Enemy of All," pp. 3-10, "A Duck's Best Friend," pp. 10-19, "A Dozen Roses and a Bale of Hay," pp. 23-34, "The Cleanlys," pp. 34-46, and "Another April," pp. 408-416, *Prose and Poetry Journeys* (VII), Singer, 1945.
- *Unit: "Wonders of Nature," pp. 165-214, *Discovery* (VII), Winston, 1946.
- *"South Pacific Adventures," pp. 1-16, "King Joins the Army," pp. 51-64, and Unit: "Animal Wisdom," pp. 73-132, *Exploration* (VIII), Winston, 1947.

- ***"Passenger Pigeon, Bird of Yesterday," pp. 199-202, and "Giant Animals of Today," pp. 209-213, *Within the Americas* (IX), Ginn, 1946.
- ***"Gulliver the Great," pp. 8-16, and "The Destiny of Dan VI," pp. 17-27, *Adventures in Reading* (IX), Harcourt, 1946.
- ***"Battle by the Breadfruit Tree," pp. 91-97, and "Photographing Lions," pp. 104-113, *Adventures for Readers*, Book One (VII), Harcourt, 1947.
- ***"The Elephant Remembers," pp. 110-125, and "Gay-Neck in the Himalayas," pp. 134-141, *Your World in Prose and Verse* (VIII), Laidlaw, 1942.
- ***"Brin," pp. 243-249, "A Wanderer under the Sea," pp. 316-321, and "On the Track of Moby Dick," pp. 487-496, *Expanding Literary Interests* (IX), Laidlaw, 1942.
- ***"Tragedy at the Beaver Dam," pp. 143-153, "Musketeer," pp. 166-177, "Great Possessions," pp. 192-196, and "Subterranea, the Mystery Kingdom," pp. 274-278, *Interpreting Literature* (IX), Macmillan, 1943.
- ***"Moti Guj—Mutineer," pp. 29-37, "For the Supremacy of the Trail," pp. 363-375, and "Dilemmas of the Wild," pp. 376-382, *Prose and Poetry Adventures* (VIII), Singer, 1945.

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- *"The Runaway," pp. 182-184, "Stupidity Street," p. 203, "A Robin Redbreast," p. 203, and "Nature's Friend," p. 207, *Within the Americas* (IX), Ginn, 1946.
- *"The Runaway," p. 22, and "The Dog As Seen by the Cat," pp. 25-26, *Adventures for Readers*, Book One (VII), Harcourt, 1947.
- *"The Shell," pp. 368-369, and "Fire," p. 370, *Merry Hearts and Bold* (V), Heath, 1942.
- *"Oh, Little Cat with Yellow Eyes," p. 298, "The Tomcat," pp. 299-300, "The Open Door," p. 300, "The Hoss," p. 341, and "Song of the Rabbits Outside the Tavern," p. 375, *Understanding Literature* (VIII), Macmillan, 1944.
- *"The Runaway," p. 181, "Stopping by Woods on a Snowy Evening," p. 182, "Silver," p. 429, "May Is Building Her House," pp. 426-427, and "Velvet Shoes," pp. 429-430, *Interpreting Literature* (IX), Macmillan, 1943.
- *"Trees," p. 287, "The Eagle," p. 293, "Afternoon on a Hill," p. 294, "The Brook's Song," pp. 295-297, "Fog," p. 298, "Silver," p. 299, and "Velvet Shoes," pp. 300-301, *Broadening Horizons* (IX), Rand, 1942.
- *"The Blue Heron," pp. 382-383, "The Snake," pp. 383-384, *Prose and Poetry Adventures* (VIII), Singer, 1945.
- ***"To a Mouse," pp. 389-390, "To a Swallow Building Under Our Eaves," pp. 392-393, "The Broncho That Would Not Be Broken," pp. 409-410, "The Cat and Northern Lights," p. 411, and "Dog at Night," pp. 411-412, *Trails* (VIII), American, 1941.
- ***"Robert of Lincoln," pp. 32-33, *Adventures for Readers*, Book One (VII), Harcourt, 1947.
- ***"The Thoroughbred," p. 109, and "My Dog," p. 133, *Your World in Prose and Verse* (VIII), Laidlaw, 1942.

Unit Seven—In the Service of Mankind

- Unit: "Boys Who Found Out," pp. 280-360, *Merry Hearts and Bold* (V), Heath, 1942.
- Unit: "Heroic Lives," pp. 81-158, *Tales and Travel* (V), Houghton, 1943.
- "Antonio Canova," pp. 237-239, "Captain Cook," pp. 266-272, and "Walter de la Marc," pp. 318-326, *The Blue Sky Book* (V), Singer, 1946.
- *"Our Lady of the Red Cross," pp. 117-126, "Florence Nightingale," pp. 353-357, and "The Struggle for an Education," pp. 529-535, *Trails* (VIII), American, 1941.
- *"When Louis Took a Vacation," pp. 374-377, "Protector of the Indians," pp. 390-395, and "Champion of the World," pp. 479-485, *Invitation to Reading, Book One* (VII), Harcourt, 1945.
- *"The Last Days," pp. 117-131, and Unit: "Meet These Famous People," pp. 259-324, *Invitation to Reading, Book Two* (VIII), Harcourt, 1944.
- *"General Ike's Boyhood," pp. 300-304, "He Journeyed into a Far Country," pp. 304-314, and Unit: "Real People," pp. 345-398, *Adventures for Readers, Book One* (VII), Harcourt, 1947.
- *"Barnum's First Circus," pp. 324-335, *The Brave and Free* (VI), Heath, 1942.
- *"Tad Lincoln's Father," pp. 48-56, and "Mark Twain," pp. 57-70, *Conquest, Book One* (VII), Heath, 1946.
- *"Antoine Laurent Lavoisier," pp. 213-216, "James Gordon Bennett," pp. 220-222, "Emile Berliner," pp. 223-225, "Niels Ebberson Hansen," pp. 226-227, and "Clara Barton," pp. 450-453, *Driving the Reading Road* (VII), Lyons, 1942.
- *"Doctor Morton Discovers Anesthesia," pp. 253-256, *Understanding Literature* (VIII), Macmillan, 1944.
- *"Bolivar at Caracas," 209-212, "Henry Wadsworth Longfellow" (and selections), pp. 218-245, and "Rudyard Kipling" (and selections), pp. 324-345, *The Firelight Book* (VI), Singer, 1946.
- *"Intimate Glimpses of Famous People," pp. 359-368, *Discovery* (VII), Winston, 1946.
- *"Huge Undertaking," pp. 343-351, "The Man Who Liked Snakes," pp. 353-359, "Rehearsal," pp. 362-372, "The Singing Iceman," pp. 373-378, and "Burton's Birds," pp. 380-386, *Exploration* (VIII), Winston, 1947.
- *"John Brashear: Beloved Lens Maker and Astronomer," pp. 227-233, "Ticks and Texas Fever," pp. 234-242, "George Washington Carver, Scientist," pp. 244-250, "America," pp. 255-263, "Paul Revere, 1735-1818," pp. 465-467, "Nathan Hale, 1775-1776," pp. 468-471, "George Washington," pp. 471-475, "Bolivar, the Great Liberator," pp. 478-483, and "Elizabeth Cady Stanton," pp. 496-498, *Within the Americas* (IX), Ginn, 1946.
- *"Chief of the F. B. I.," pp. 176-186, *Adventures for Readers, Book Two* (VIII), Harcourt, 1947.
- *"The First of the Microbe Hunters," pp. 222-235, "The Last March," pp. 236-245, "Madame Curie," pp. 246-252, and "Abe Lincoln Grows Up," pp. 253-283, *Adventures in Reading* (IX), Harcourt, 1941.

- ***"Velvet Coat," pp. 221-230, *Your World in Prose and Verse* (VIII), Laidlaw, 1942.
- ***"Big Brother," pp. 268-273, "Sheriff Roosevelt and the Thieves," pp. 276-280, and "To the Uttermost Ends of the Earth," pp. 373-378, *Expanding Literary Interests* (IX), Laidlaw, 1942.
- ***"A Boy Who Was Traded for a Horse," pp. 332-337, "Just Living," pp. 338-341, "Alone," pp. 342-355, and "Promoter of the Arctic," pp. 356-358, *Interpreting Literature* (IX), Macmillan, 1943.
- ***"The Death Fighter," pp. 117-137, and "William Beebe, Scientist," pp. 138-143, *Broadening Horizons* (IX), Rand, 1942.
- ***"Edith Cavell," pp. 16-23, "Jean-Henri Fabre: Uncommon Thrills from Common Things," pp. 349-360, and "Susan B. Anthony," pp. 438-443, *Prose and Poetry for Enjoyment* (IX), Singer, 1942.

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- **"Madame Curie," p. 101, *Ventures* (VIII), Houghton, 1940.
- **"And Yet Fools Say," p. 423, *Understanding Literature* (VIII), Macmillan, 1944.
- **"Clara Barton," pp. 321-323, and "How Cyrus Laid the Cable," pp. 323-324, *Prose and Poetry Adventures* (VIII), Singer, 1945.
- **"How Cyrus Laid the Cable," pp. 314-315, *Trails* (VIII), American, 1941.
- ***"Jim Bludso," pp. 352-353, and "Santa Filomena," pp. 357-358, *Trails* (VIII), American, 1941.

Unit Eight—Familiar Favorites by Master Writers

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Index of Skill-Building Exercises

PROMOTING EFFICIENT WORD PERCEPTION

Extending and clarifying word meanings

DETERMINING MEANING IN A SPECIFIC CONTEXT, pages 76, 103 (*Think-and-Do*, pages 20, 73)

DERIVING WORD MEANING FROM CONTEXT, pages 76, 127 (*Think-and-Do*, pages 30, 40, 42)

DISCRIMINATING BETWEEN SHADES OF MEANING, pages 50, 152 (*Think-and-Do*, page 59)

Using phonetic understandings and skills

PRINCIPLES THAT AID IN DETERMINING VOWEL SOUNDS (see list of principles below), pages 76-77, 89-90, 96-97, 200 (*Think-and-Do*, page 23)

POSITION: If there is only one vowel letter in a word or syllable, that letter usually has its short sound unless it comes at the end of the word or syllable.

SILENT VOWELS: If there are two vowel letters together in a word or syllable, usually the first has its long sound and the second is silent.

If there are two vowel letters in a word or syllable, one of which is final e, usually the first vowel letter has its long sound and the final e is silent.

CONSONANT CONTROLLERS: If the only vowel letter in a word or syllable is followed by r, the sound of the vowel is usually controlled by the r.

If the only vowel letter in a word or syllable is a followed by l or w, the a usually has neither the long nor the short sound.

CLUES THAT AID IN DETERMINING ACCENT (see below), pages 89-90, 96-97, 200 (*Think-and-Do*, page 23)

Prefixes and suffixes are usually unaccented.

If a word ends in le, the final syllable is usually unaccented.

EFFECT OF MEANING ON ACCENT AND PRONUNCIATION (*Think-and-Do*, page 16)

Using structural analysis

IDENTIFYING ROOT WORDS, PREFIXES, AND SUFFIXES IN VARIANTS AND DERIVATIVES, pages 72-73, 96-97, 104-105, 110-111, 116, 145-146, 196 (*Think-and-Do*, pages 13, 29, 35, 57)

APPLYING PRINCIPLES OF SYLLABICATION (see list of principles below), pages 89-90, 96-97, 200 (*Think-and-Do*, page 23)

If the first vowel letter in a word is followed by two consonants, the first syllable usually ends with the first of the two consonants.

If the first vowel letter in a word is followed by a single consonant, that consonant usually begins the second syllable.

If the last syllable of a word ends in *le*, the consonant preceding the *le* begins the last syllable.

Using the dictionary

DERIVING MEANINGS

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COMPREHENDING DEFINITIONS IN THE LIGHT OF A GIVEN CONTEXT, pages 63-64, 72-73 (*Think-and-Do*, pages 10, 13, 16, 35, 71)

ADAPTING DEFINITIONS TO CONTEXT, pages 63-64, 138, 204-205 (*Think-and-Do*, pages 10, 13, 35, 71)

DERIVING PRONUNCIATIONS

DEVELOPING UNDERSTANDINGS THAT AID IN DERIVING PRONUNCIATIONS FROM THE GLOSSARY (see below), pages 57-58

A letter symbol stands for its most common sound.

Each symbol stands for a given sound.

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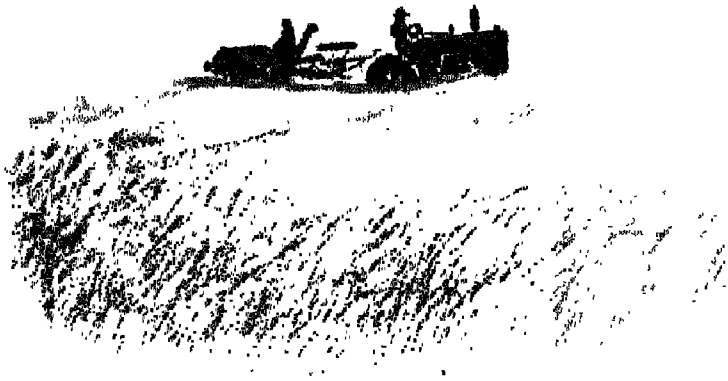
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Wonders and Workers

by WILLIAM S. GRAY

ROBERT C. POOLEY *and* FRED G. WALCOTT

BASIC READERS: CURRICULUM FOUNDATION PROGRAM

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Living in America Today





Rodney's Rocket

by RALPH GOLDSMITH

EVERYONE in our town says that Rodney Redman's name should go down in history along with those of Icarus and Darius Green. Icarus, you know, was the noble Greek who made himself a set of wax wings, while Darius immortalized himself with his flying machine. Icarus flew too close to the sun and came to an untimely end. And poor Darius (alas!) overlooked a few elements of aeronautics and hit the ground with a bump when he launched his homemade airship from the top of his father's barn.

Our Rodney, however, was even more ambitious than his predecessors. He wanted to—but that's my story.

At Socrates High School, Rodney Redman (in the days before he tried to make history) was known as the

one-man class. He knew the right answers to all the questions, to the delight of his teachers. Rodney had a cunning habit of keeping his knowledge under cover until a teacher had called on everyone else in the class. Then he would raise an arm in timid fashion and proceed to give a full and complete answer to the question. He was good in all subjects, but shone with particular brilliance in science.

The day Rodney selected to make history was a bright Saturday—not unlike many other fall Saturdays before and since. It was a little chilly for ice cream, but then, Rodney had invited Harry Austin and me over for some, and who were we to refuse ice cream?

"It's peculiar," Harry mused as we walked together down Chestnut Street, "how human nature changes."

"In what way?" I inquired.

"Well," explained Harry, "take Rodney Redman, for instance. This is the third time this week he's had us over for a treat—right out of the goodness of his heart."

"Downright decent of him," I put in.

"You miss the point by a city block," Harry said, squinting up at the sun. "A month ago Rodney wouldn't have given us the wrapper of an ice-cream bar even if he knew we were saving them for a bicycle."

There was no answer to this thrust. Rodney's lack of generosity was well known to me. Now his sudden change of heart was indeed mystifying. "Well," I said, "let's not question his actions. I think Rodney's just starting to be nice to people to make up for lost time."

The Redmans lived at the edge of town in a large brick house. Beyond the house was a big red barn, and it was here that Rodney spent practically his entire

time when he was home. Harry and I always knew where to find him.

Rodney was waiting for us by the barn as we turned up the gravel driveway. "Greetings," he welcomed, peering intently at us from behind his dark-rimmed spectacles. "I see you're on time."

Without further ado he opened a door in the side of the barn and led us into a small antechamber filled with lawn mower, rakes, garden hose, and other implements of labor. What Harry and I noticed with particular interest was a gallon can of ice cream sitting in the middle of the floor.

Rodney handed us each a dish and a spoon. "Eat all you want," he instructed. "When you get through, I've got a little job for you."

Harry and I glanced at each other warily. Rodney's sudden outburst of generosity was definitely suspicious. Nevertheless, Harry and I got away with a dish or two of ice cream while Rodney sat on a box beside us, his chin cupped in his hands, a faraway look in his eyes. We stole glances at him from time to time, but he would merely smile wisely and urge us to continue our repast.

"Now," he announced, when we finally handed him the dishes, "I'm going to let you fellows in on a secret." He stepped to the door that led to the main part of the barn and paused with a hand on the latch. He succeeded in making it a dramatic moment, and I'll confess that Harry and I were beginning to fall under his spell.

"You've got to keep it to yourselves," he said, lowering his voice, "at least until after tonight." With this, he flung open the door and stepped across the threshold, beckoning us to follow.

"This," he declared, "is my workshop."

Harry and I let our eyes rove over the spacious enclosure. There was a workbench along the far wall, complete with drill, power saw, and planer. Rodney's father allowed his son to indulge in hobbies with utter disregard, it seemed, for expense. A smaller bench was cluttered with retorts, bottles, and a Bunsen burner—his chemical equipment, we surmised.

This apparatus was dwarfed, however, by a structure that loomed in the center of the barn. It looked like a ski slide. A wooden framework supported a rounded trough that extended at an angle from the floor at the far end of the barn to a door at the peak of the roof.

"What in the world——" began Harry.

"I'll explain it all in a minute," put in Rodney calmly. "Come over here." He crossed to a dark corner of the place and stood beside a lengthy object covered with a canvas. He rested a hand on it and then turned to face us, his eyes glistening. "This," he announced dramatically, "is something that will revolutionize world travel."

Harry's jaw dropped. Neither of us said anything for a long moment. I confess I was prepared for anything when, with a sweeping gesture, Rodney flung off the canvas and disclosed his brain child to our view.

I was going to laugh at first, but thought better of it. The long, cylindrical object of gleaming metal with its fins near the tail looked like a long-extinct species of fish that might bite us at any moment.

"What is it?" I finally managed to ask.

"A rocket," responded Rodney casually; "the first passenger rocket ever constructed by man!"

"Do you mean," Harry began hollowly, "that someone's going to *ride* in that thing?"

Rodney threw back a door in the top of the rocket. "Why not? It's perfectly safe."

We crowded past him and peered in. The interior looked large enough for a medium-sized person to squeeze into. It was lined with leather upholstery which I remembered having seen on an old buggy at the Redman place some time before.

"It took me two months to build it," Rodney said proudly, "just working in my spare time, of course. Mr. Jackson at the garage cut the metal and did the riveting for me."

I had been studying Rodney's rocket with more than a little interest. "What," I asked, "is going to propel this thing?"

Rodney smiled that superior smile of his and put a finger to his lips. "We'll come to that in good time. Now, what I want you fellows to do is to help me lift it onto this incline."

Gingerly we got our arms around the smooth, slippery surface and carried the rocket to the incline. For all its size, it was surprisingly light in weight. We had just rested it gently in place when Harry, who had been holding up the rear portion, suddenly let out a weird yell. "Ow-w!" he cried; "something burned me!" He began rubbing his hands together briskly.

I reached out and touched the back of the thing cautiously, as Mother touches her electric iron to see if it is hot. "You're off your noggin!" I exclaimed. "This thing's as cool as a cucumber."

"I tell you something burned me," insisted Harry.

"Friction," explained Rodney hurriedly. "That's all, just friction. You let it slide out of your hands too fast." Harry leered at his studious schoolmate and sucked his fingers, moaning softly to himself.

Rodney busied himself making the rocket fast on the incline, securing it with blocks he seemed to have made especially for that purpose. Harry and I stood back a few paces, watching him with a mixture of fear and awe. "You haven't told us yet," I said finally, "what makes this thing go."

"I'm coming to that." Rodney climbed up onto the rocket, which was now resting at an angle on the incline, its nose pointed at the opening near the roof of the barn. He flung open the door in the top. "Crawl up here and I'll show you," he commanded.

Cautiously Harry and I climbed up and looked in. We saw a sort of instrument board near the front. Directly in the center was a large, round dial like the pressure gauge on a steam boiler. This was graduated by tens to a total of 200 pounds pressure. I sucked in my breath. Did I imagine it, or was the needle on that dial fluctuating between 90 and 100 pounds?



"The pressure isn't high enough yet for a trial run," Rodney explained. "I won't try to explain the compound I'm using for power; it's too—too technical." He pulled out his watch rather swiftly and glanced at the time. "By seven o'clock tonight everything should be ready."

"Rodney," I said, trying to keep my voice as calm as possible, "you're not actually going to try to launch yourself through space in this thing?"

He turned on me indignantly. "Why not? Did Orville Wright hesitate at Kitty Hawk? Did Fulton build a steamboat and then not give it a chance?"

Harry and I both gulped at the same time. "Only," went on Rodney, "I don't want to make the first trip myself. I've got to be here to make calculations and things, and——"

A light was beginning to dawn. "Just whom," I said slowly, "do you plan on sending aloft on the rocket's maiden voyage?"

For the first time in his life Rodney Redman seemed nonplussed. "W-well," he said hesitantly, "I had you or Harry in mind. Of course," he added hastily, "I'd be responsible for you." He brightened suddenly, and his words became glowing. "Just think! The first one to make a trip in a rocket. You'll be ranked with Columbus and——"

My eyes were suddenly glued to the dial on the instrument board. I was convinced that the needle had suddenly jumped ten more degrees. A vision floated before me of a twisted hulk of metal that had once been Rodney's rocket—with me, a martyr to science, wrapped in it as in a cocoon.

"Harry," I said, "it's time for us to go."

Without a word Harry climbed down with me, and we

strode out of the barn, leaving Rodney fuming beside his rocket. "All right," he shouted after us. "I've given you your chance. I'm going to take off myself, then, tonight at seven o'clock!"

That evening after supper Harry and I stood nervously in Tony Martelli's drug store sipping orangeade. "Ice cream!" snorted Harry suddenly, and made a wry face. "To think of him feeding us ice cream, and then—and then——"

"Expecting us to sacrifice our precious lives for him!" I finished. I wiped my brow with a trembling hand. "That Rodney Redman ought to be examined; really he should."

Tony, who had been polishing his glassware, stepped up at the mention of Rodney's name. His black eyes sparkled. "Heesa good boy, that Redman. Heesa my best customer. Tree-four times da last week he buys ice cream. Does he say, 'Tony, I wanna da choc', da vanil', da stroomberry'? No! Da Redman, he say, 'Tony, you geefa me anyting—joost pack in lotsa da ice!'"

Tony took the cover off an ice-cream container and tossed out a slab of white-crystal stuff that smoked oddly as it became exposed to the open air. "Redman say, 'You geefa da dry ice, Tony. You pack heem good to make eet cold.'"

"Let me see that stuff." Harry held out his hand. He fingered the steaming crystals for a moment, then dropped them with a howl. Tony grinned broadly.

Mental lightning suddenly struck me squarely between the eyes. I grabbed Harry by the arm. "Dry ice," I chattered. "Solidified carbon dioxide, vaporizing at ordinary temperatures. You remember, we studied it last semester in science class?"

Harry looked at me blankly. "That explains everything," I went on, talking so fast and excitedly that Tony nearly dropped the glass he was drying. "Rodney's been buying all that ice cream just to get the dry ice it was packed in. He must have been packing it in the tail of his rocket. That's why you thought you burned your hand on the metal—it was freezing cold. That stuff is dynamite. In an airtight enclosure it will build up a tremendous pressure when the solid dioxide changes to gas!"

Harry's jaw sagged. I was off my stool and heading for the door. "Rodney may know the answers in the books," I called over my shoulder, "but he's playing with a buzz saw now, and it's up to us to bring him to his senses."

"N-o-o," begged Harry. "Please let's not go back there; let's keep out of this." But he reluctantly followed me out of the drug store, and we headed in the direction of Rodney's place. A car backfired as we hurried down Chestnut Street, and we both nearly jumped out of our shoes. I gave a sigh of relief when Rodney's barn loomed into sight.

We found Rodney inside, fussing with something at the tail of his rocket. He looked up startled as we burst through the door. Harry and I ran up to him and each grasped an arm. "Come on!" I shouted. "You've got to get out of here. We know what's in that cylinder, and it'll blow you to smithereens!"

Rodney spluttered like a locomotive letting off steam. "Let go of me," he shrilled. "Are you fellows crazy? It's nearly time for my experiment." Out of the corner of my eye I saw through the door of the rocket that the needle on the dial was hovering close to 200. My head started to spin dizzily.

Harry and I began dragging Rodney across the floor. He struggled futilely, babbling something about "martyr to science." We finally got him outside the barn. The commotion must have aroused Mr. Redman, who came running out in his stocking feet. He had evidently been toasting his toes before the fireplace.

"What's going on?" he demanded fiercely.

"Papa," sobbed Rodney, "these fellows are interfering with my work."

Mr. Redman made a few purposeful strides in our direction. But he never quite got to us—something happened that stopped him in his tracks. It was a loud, clanging explosion—as if someone had shot off a cannon in a boiler factory. We looked at the barn. Its sides were puffed out, and loose shingles from the roof were spinning through the air.



"Oh, my!" said Mr. Redman.

"Oh, my!" echoed Harry and I.

Rodney said nothing.

Then it started to hail. Little chunks of smoking ice began pelting from the sky. We all stood as though petrified. Mr. Redman made a few steps toward his barn, then halted, his eyes wide. Suddenly he shouted, "Ouch! Ouch! My feet!" He jumped up and down, grasping first one unshod foot and then the other with both hands. He had been standing on dry ice—and dry ice can seem as hot as a burning coal to a shoeless foot.

Rodney suddenly came out of his trance. He gave a queer, choked cry and started running. But he didn't get far. One of Mr. Redman's big hands caught him by the shoulder and jerked him back. There was a smart right about-face, and Rodney was trundled none too gently in the direction of the house.

Harry and I stood awhile in silence. We waited until the door of the house had banged shut on the two.

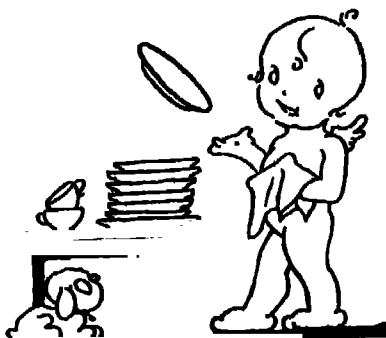
"I'm afraid," said Harry, "that Rodney will have to wait for a more opportune time to make history."

"Right," I added. "It looks as though the man in the moon is going to keep on being lonesome for a while yet."

We shook our heads solemnly and headed back toward Chestnut Street.

The Cheerful Cherub

by REBECCA MCCANN

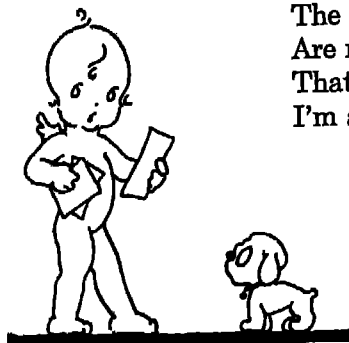


DISHWASHING

Today I broke another plate;
It quite delights me now and then
To think there's one at any rate
I'll never have to wash again.

IMAGINARY PORTRAIT

The proofs that photographers send
Are much more revealing than kind.
That's not how I look to myself—
I'm always retouched in my mind.

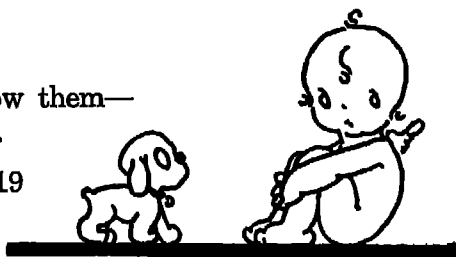


SOURCE OF SORROW

Whenever I am gloomy,
In time I come to see
It's just because I'm thinking
Entirely of me.

EFFORT

My teachers criticize me
And say I loaf and shirk.
I'd do great things to show them—
Except it's so much work.





Ben Bartlett's Banner

by DANA BURNET

BEN BARTLETT was thirteen and still growing. Granny Bartlett worried about his weight and worked steadily to stoke his hungry body with nourishing food. She did not worry, at first, about Ben's being in love. It seemed to her quite natural that a boy should fall in love as Ben had fallen in love—with a boat.

He had told her about it within ten minutes after his arrival at the island for summer vacation.

"Hey, Gran, look. I've got something to show you," he had said, carefully unfolding a sheet of paper he'd taken from his breast pocket. "It's something I've been thinking about all winter."

"Instead of your schoolwork, I suppose," she said with a chuckle.

Ben's face brightened. When Gran giggled like that, it meant that she was open to argument. He quickly handed her the paper on which he had drawn, quite beautifully, the likeness of his dream.

"Ha!" said Granny. "I might have known 'twould be a boat. But what kind is it?"

"It's a kind of sea sled, Gran. I got the idea out of that yachting magazine you gave me for Christmas, but I drew the plans to suit myself. I've got 'em right here!" He began to produce plans; his pockets fairly sprouted sheets of paper. "Look, Gran; it won't be hard to build. Just look." He waved the penciled drawings in front of her glasses. "All I need is the lumber and——"

"Wait," she said. "Hold on a minute. You mean you're planning to build this boat yourself?"

"Why, yes, sure, Gran. It's only twelve feet over all. I can build it right in the boathouse."

"But what are you going to do with it when you've built it? Are you going to rig a sail on it?"

"Oh, gosh, no, Gran. It isn't a sailboat. It—it's really designed for an outboard motor, but of course I know it'll probably be next summer—or the next—before I can save up enough money to buy a——"

"Ben!"

"Yes, Gran?"

"If you think you can wheedle me into giving you an outboard motor, you're very much mistaken."

"Why, Gran, I never——"

"They cost too much. And besides, it would worry your father and mother, having you run around the river in a dishpan with an engine on it."

"Oh, no," Ben said promptly. "It wouldn't worry them. They told me before I left—I mean, they always tell me I can do anything you say I can do. You know that, Gran."

It was true. At the island, her word was law. Her children had accepted it in their day, and now,

in turn, they accepted it in full trust for their children.

"Ben, I don't know what to say to you."

"Well, gee, all you have to say is that I can build the *Shooting Star*."

"The what?"

"That's what I'm going to call my boat. The *Shooting Star*."

As the squat form of the *Shooting Star* began to take shape in the boathouse, Granny Bartlett found herself listening happily to the serenade of hammer and saw. Soon she was spending hours with her grandson in the boathouse, helping him, handing him the tools he wanted, hearing his discouragements, and praising each new success. She was never too busy to assist him, nor was William, Mrs. Bartlett's boatman. Even the cook, Mrs. Penny, contributed valuable suggestions.

At last the great day of the launching arrived. Mrs. Penny brought down from the cottage a bottle of pop to celebrate the ceremony. Ben didn't dare break the bottle over the *Shooting Star's* fragile nose. So he opened the pop with a pair of pliers. After he and Granny and William and Mrs. Penny each had had a sip, Ben poured the fizzing remainder over the boat's blunt bow. Then he and William eased her down into the water, where, miraculously, she floated.

"Well, thank goodness," said Granny.

Ben said nothing. He just stood there, staring down at his handiwork and grinning fixedly. Then he turned and looked at his grandmother—and sighed. That was all. But she saw the plea in his eyes and knew what her next surrender would be.

The outboard motor was really a great bargain.

Ben got it second hand from his friend Mr. Fitzgerald, the boatbuilder at the Bay. They fetched it home in Mrs. Bartlett's boat, the *Alice*, and fastened it immediately to the stern of the *Shooting Star*. Granny stood on the dock and watched as Ben paddled his small, buglike craft out of the boathouse. The *Star* was twelve feet long by five feet wide and fourteen inches deep, with a plywood deck forward and an open cockpit aft. Ben had painted her a jaunty black and red.

The August day was fair. The sun shone, and the broad reach of the river was calm and blue. Ben waved to his grandmother and jerked the starting cord of the motor. It sputtered a time or two; then it caught with a startling uproar. The *Shooting Star* lifted her head and leaped into wild flight. In an instant, it seemed, she was a dwindling speck in the distance. Then back she came, cutting close to the shore and going like a bullet shot from a gun.

Ben rushed past the dock with wind in his hair and the flash of a grin on his face. Granny held her breath. She had not dreamed that the thing could go so fast.

Ben cut the motor, and the *Star* nosed down and drifted sluggishly toward the dock.

"Hey, Gran! She doesn't leak a drop! Gee, didn't she travel! I bet she was doing close to forty and——"

"Ben, have you got a life preserver in that boat?"

"Oh, sure, Gran. I know the rules."

"All right. Now you listen to me, boy! You're never to go out in that cockleshell unless you wear a life preserver. And another thing. You can run around here, between this island and Slauson's Point, but you're not to get out of sight of the boathouse. You promise?"



He opened his mouth to protest; then, noting her determined expression, thought better of it. "Yes, Gran. I promise."

"Well, I feel better. You've never broken your word to me yet. Now tie that thing up and forget it for a while. Our dinner's ready."

Ben said, "Right away, Gran." Then his grin spread till his whole face shone with it. "But she sure traveled! Oh, boy! Did she travel!"

As fall approached and Mrs. Bartlett went into town to shop, she heard nothing but talk of the annual Labor Day Races. So she was not altogether unprepared when, at lunch one day, the boy blurted out his final, momentous request.

"Of course I couldn't enter the *Star* in the big race, Gran," he said, "but they're going to have a

free-for-all for boats under twenty feet to start the program. Anybody can go into it. You just pay a little old entrance fee and——”

“No,” said Granny.

“Aw, please don’t say no as quick as that, Gran. Because I mean you can take the entrance fee out of my allowance. Right out of my next——”

“It isn’t the entrance fee I’m thinking of, and you know it. You’re just trying to confuse me.”

“No, I’m not. I mean, you don’t understand. It isn’t just that I want to enter the *Star* in this race. It’s—it’s a sort of personal thing between me and Stanley Coleman. You know the Colemans that have that big house over on the mainland and his father gave Stanley that sixteen-foot V-bottom raceabout?”

“Yes, I know who you mean. Stop waving your fork! What about Stanley?”

“Well, I was out in the *Star* the other day—just fooling around in front of the boathouse—when Stanley came by in his boat, and I sort of wondered if I could catch him.”

“Ha!” said Granny.

“I would have caught him, too, if I hadn’t promised you not to go beyond Slauson’s Point. I had to stop there and turn around. So then the next morning I saw Stanley at the Bay, and he asked me why I stopped, and I just said I was low on gas—and I was. But Stanley said I quit. He called me a quitter, and he dared me to race him in the free-for-all on Labor Day.” Ben drew a deep breath; then said quietly, “Please, may I do it, Gran?”

She bent her head and looked at him through the top lenses of her glasses. “Ben, I do understand how you feel. But I’ll have to think it over. That

boat of yours is all right as a plaything, but I'm not at all sure it could stand the pounding it would have to take in a race."

"I'm not afraid of that," Ben said.

"I'll talk to you after I've had my nap," she said.

Alone in her room, she did not lie down as usual. She sat in her rocker beside her sewing table and took counsel with herself.

"I'm not afraid," Ben had said. She found it hard to meet that challenge. For she, who had never feared anything for herself, was afraid for him. She thought of the possibility of fire or of a collision or of the *Star's* being upset by a high wave; yet she realized that Ben might well cope with any of these risks. The truth was, she decided, that she was afraid simply because she loved the boy. She had felt the same fear for her own son, Ben's father. But always she had hidden her anxiety from him, and now she saw clearly that she must not reveal her fears to Ben. She knew that she could not rob him of his courage. She must not quench that light shining within him.

Suddenly her own spirit was at peace. She reached for her needle and thread and scissors, and was soon working with swift, sure movements of her capable hands.

It was mid-afternoon when, with her sewing bag in her hand, she reappeared downstairs.

To her surprise, she found Ben reading a magazine in the living room. As a rule, he spent every waking hour on the river. He rose, smiling wanly, as she came in.

"For mercy's sake," she said, stopping short. "Is anything the matter with you?"

"Why, no, Gran. I just thought I'd wait till you came down." He looked at her expectantly. "Granny, did you—did you think it over? I mean about——"

"I know what you mean. Stop looking like that. I've got something for you."

She reached into her sewing bag and took out her gift to him. It was a blue pennant with a red star sewn on either side of it. "You can fly it in the race on Labor Day," she said.

Ben took the pennant in his hands and gazed at it. He saw it as it would look flying proudly from the bow of the *Star*. But he saw in the blue cloth something more than a banner for his boat. It was a bond of understanding between him and his grandmother.

On race day Granny's half-cabin boat, the *Alice*, hovered near a flag buoy which marked the most dangerous point of the course over which the boats were to race. The flag buoy lay on a direct line with the starting point, a stake boat approximately half a mile away. The racers would first head toward a light-house a mile downriver, turn, and speed for the flag buoy. Here they must make a dangerous right-angle turn and head for the starting point across the channel. There would be three laps around the entire course.

The motor of the *Alice* was turning over slowly.

"Aren't you going to anchor, William?" Gran queried.

"Well, we're in deep water, Mrs. Bartlett, and she wouldn't hold anyway in this wind, mebbe."

Granny looked at him, but William avoided her eyes. In his quiet, sure way he had decided to keep the *Alice* free for action in case of emergency. Granny said no more, but settled herself beside Mrs. Penny to watch the races.

It was exciting, in spite of her deep concern. The day was bright, and the river was full of sight-seeing craft. The water front was black with crowds. Somewhere a band played brassily, and everywhere there were flags fluttering in the wind. The docks, the great hotels ashore, and the yachts afloat were dressed with them. Every boat had its pennant—and Ben had his.

Granny looked again for the *Shooting Star*, and found her tossing restlessly near the starting line. She saw the stump of broom handle that Ben had placed at the bow with a strip of blue cloth flying from it. It was the pennant she had made for him.

A streak of flame spurted from the mouth of the small brass cannon on the stake boat; then came the sharp crack of the warning signal.

"They'll be off in a minute," Mrs. Penny said.



There were fewer boats in the race than had been expected—only six were nosing up to the starting line. All were pleasure craft belonging to summer residents, and all except Ben's were glossy-hulled beauties. Four were mahogany. One was painted a dazzling white. The white boat belonged to Ben's personal adversary, Stanley Coleman. Among these trim craft the *Shooting Star* looked more than ever like a gaudy water bug.

But in all things that move, performance is what counts. A moment after the gun had sent them away, Ben was out in front, leading the pack. The river here was very choppy, and the little sea sled literally jumped from crest to crest. She hurtled on down the river toward the lighthouse, with the white boat following her and the others strung out behind.

Granny, Mrs. Penny, and William were all watching



from the cabin of the *Alice*. Turning to William, at the wheel, Granny asked, "Do you think Ben can keep it up for three laps?"

"We can tell better after the first time around, mebbe," replied William. He knew that the severest test would come when the boats rounded the buoy flag.

"Here they come," Mrs. Penny said. "Looks like the white boat's in front."

"That Coleman boy!" muttered Granny.

"No," said William. "Ben's on the inside. He's still ahead, I guess."

"Oh, I see him now. Murder, what a splash he makes! Bigger than any of them."

"He'll be soaked to the skin," Mrs. Penny said.

"He's used to it," snapped Granny.

"If the water just doesn't soak in and short the ignition," said William quietly.

The high whine of Ben's outboard motor struck their ears, reassuring and triumphant. It grew swiftly louder. They had a brief glimpse of him in his bulky life jacket, crouched at the tiller of the *Star* as she danced past them. Stanley Coleman's white boat was two lengths behind and going smoothly. The other boats were still trailing, apparently outclassed.

"William! He'll have to slow down for the turn!"

William merely nodded. He was busy swinging the *Alice* to keep her bow pointed toward the oncoming boats.

The two leaders reached the flag buoy, skidded around it, and immediately came broadside to wind and swell. A wave caught the *Star*, lifted her till she stood practically on end, then slammed her down violently into the trough. At once the shrill singing note of her motor dropped to a querulous, low-

pitched chatter. Her headlong rush was checked. She took the second wave like a lady. "Like a lady-bug," thought Granny, and laughed with relief.

"Well, thank goodness!" she said aloud.

Ben had made a quick and cool decision to sacrifice his lead on the cross-channel leg rather than risk capsizing. The white boat, riding more easily on her V-bottom, reached and passed him, but she was taking no chances, either.

"Ben'll catch him again on the run downriver," declared Mrs. Penny confidently.

"I don't care," Granny said, and she didn't.

She felt much better. She felt fine. Ben had done well so far, and he had shown good judgment. He was a sensible boy. She could stop worrying.

The second lap was a repetition of the first except that when the two rivals passed the *Alice* for the second time, they were almost even. Ben had closed the gap between them, and a little more, but he was out in front now by no more than the length of his blue bow pennant.

Again the boats slowed after the turn, and again Stanley took the lead. But this time, as the *Star's* nose came down, the observant William noticed that she was head-heavy. That meant either that she had shipped water or was leaking, or both.

"William, what are you muttering about?"

"Why, Mrs. Bartlett, I—I was just saying to myself that it would be a close finish, mebbe."

"There's a freighter coming down the channel," said Mrs. Penny.

Granny looked around and saw the freighter, perhaps a mile away and steaming toward them.

"She's too far away to bother, isn't she, William?"

"She won't bother," William said, with rare positiveness. "Even if she comes on before they finish, there's plenty of room in the river."

Granny tried to accept this as good sense, which it was. Yet she was worried. For that reason, the last lap of the race seemed interminable. For a while she lost sight of the moving boats entirely. Then abruptly they reappeared above the lighthouse, the first two far in advance of the others.

Ben and Stanley Coleman came plunging up the wind-swept channel together. No, not together. For as they approached the flag buoy, the white boat's fantailed wake showed well ahead of the *Star's* desperate splashes. Ben was two or three lengths behind and, with what he'd lose on the final leg, would surely be beaten. "Well, it isn't important," Granny thought.

"Glory!" said Mrs. Penny. "Look at that freighter. She's almost to the buoy."

Granny turned quickly. The freighter's high, blunt bows and derrick masts loomed up only a couple of hundred yards above the flag buoy toward which Ben and Stanley were driving from the opposite direction. For an instant, stark fear took Granny by the throat.

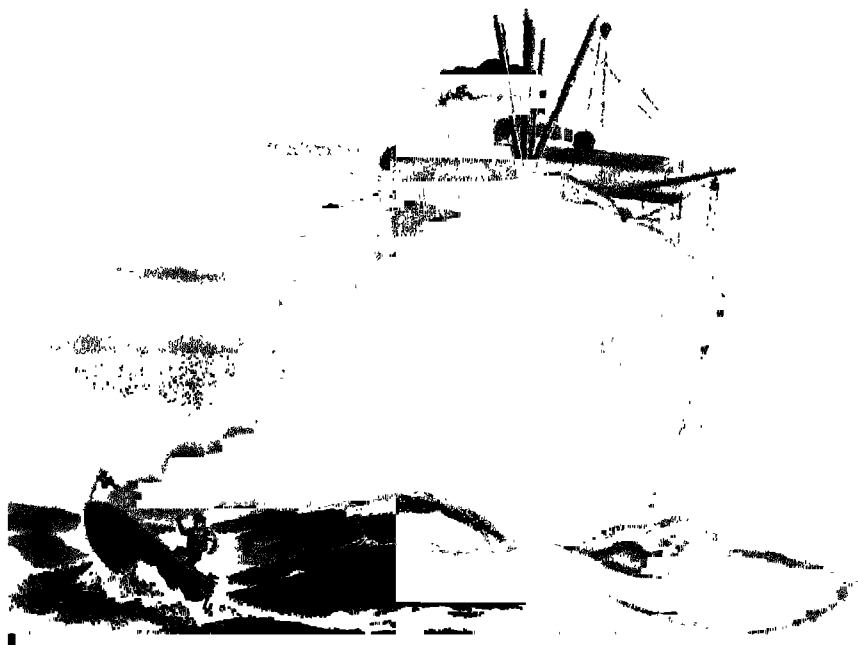
Then William's calm voice steadied her. "The boys'll have to stop to let her go by."

Yes, of course. They'd have to stop and wait for the freighter to pass. If they rounded the buoy now, they'd be right under her forefoot. Oh, yes! There! The white boat nuzzled down, yawed, and lost her way. Stanley was stopping. William was right as always.

The only thing that proved him wrong was the

unpredictable blaze of purpose in a thirteen-year-old boy's mind. For Ben didn't stop. He didn't even slow down. He roared up to the buoy, turned it, and shot ahead at full speed directly under the menacing black stem of the oncoming lake freighter. For a split second those iron bows were right on top of him, and then, just as the *Star* leaped clear, a cross swell caught her and flipped her over, like a leaf whirled by the wind. Ben was flung sprawling into the freighter's bow wave.

William could move like lightning when necessary. The *Alice* lurched forward as he threw in the clutch. Her motor thundered, and she was plunging toward the scene of the accident before the freighter's shadow passed over it. Granny, dazed and shaken, stood staring fixedly at the dark head bobbing in the turmoil of the freighter's wake.



Ben was swimming. She could see his arms working now. But he was not swimming toward the *Alice*. He was making for a bit of wreckage that tossed just beyond him. He reached it; then a wave rose up and hid him completely from sight.

"Oh, please, dear Lord," Granny said softly.

There was a blur in her eyes and in her mind, so that what happened next was all confusion. It was not till Ben stood dripping in the cockpit of the *Alice*, with William's arm around him, that Granny's world came back into clear focus.

"Gran! The *Star's* gone! She's gone, and I——"

"Ben! Are you all right? Are you——"

"I lost the outboard motor. I'm sorry, Gran. But I couldn't help it. I just had to do it." He paused to get his breath. "And I had it figured out right, too, but then that darned wave threw me! But I——" He stopped, and a grin started and spread over his wet, oil-streaked face. "But at least I didn't quit. I lost the race, but I didn't quit, and Stanley Coleman did. That's all I care about, except losing the *Star* and the outboard motor that you paid so much——"

"Stop talking about that! I don't care about it," Granny said, "as long as you're safe."

"Me? Oh, sure. But, Gran, I did save something."

He reached inside his life jacket and pulled out the water-soaked, wind-frayed wreck of the blue pennant.

"Well, for mercy's sake," Granny said a bit unsteadily. "Is that what you swam back for?"

He looked at her and nodded. There was that in his eyes which she knew now would never cease to make a light within him.

"I'm going to keep it always," Ben said.



Archery

by GRACE NOLL CROWELL

CARVE a stave of lemonwood
With a silver blade;
Shave and plane and polish it,
And when your bow is made,
It will have the golden glow
Of newly ripened corn.
Cap its slender, balanced ends
With bright tips of horn,
Varnish it until it shines,
And wrap its girth and see
How beautiful a slender stave
Of wood can come to be.

Point the arrows, feather them,
And wax the bow's strong string—
A bow and arrow in the hands
Is such a graceful thing!
Muscles rippling with the pull,
The bow and arrow part,
And the target has a feathered stick
Quivering in its heart!



Shiny Pants

by BORDEN CHASE

THEY thought I didn't know, but I did. Dad was going to enlist; he was getting things straightened out and fixed proper at the ranch, so that he could join the Army. I'd seen him figuring with Mom at the dining-room table after the dishes were washed and put away. That was my job, putting away the dishes. Mom washed, Dad dried, and I put away. Then I had lessons to do.

I always took the lessons into my room, so that the radio or their talking wouldn't bother me. Sometimes I'd get stuck with a problem, and I'd bring it in to them at the table. That's how I knew about Dad. Once when I came in, he had the bankbooks out, and he was saying, "We can make it, Ellen. If it doesn't last more than three years, we can make it. Bert Holloway will work for eighty and found. Our oat hay and alfalfa will bring a good price. We can make it."

"All right, Tom," said my mother. "If you want to go—well, all right. Bess and I will manage."

"It isn't that I want to," said my father. "I don't like leaving my wife and daughter. But there's some things a man has to do. So he does 'em."

He nodded his head short when he said it. Just the way Copper, the three-year-old colt, does after he's kicked a rail out of the corral fence. "So he does 'em," and then that little short nod. I knew it wouldn't be long before Dad would be Private Tom Travers, U. S. Army.

Bert Holloway brought his bag and Sunday boots the next day. Mother and I had cleaned out his room at the far end of the box stalls. Dad showed him how we were feeding the stock and then took him to the small corral.

I always liked to watch Dad's face when he opened the stall gate and let Copper into the corral. He was proud. He tried not to show it, but he was proud.

"Hi, Shiny Pants!" he'd say. Always the same thing: "Hi, Shiny Pants!" And that three-year-old would flash out of the box stall as though it were a starting gate. A quarter horse—from the tips of his ears to the frogs in his hoofs, Copper was a quarter horse. I guess you've seen them. Or, at least, I hope you have. Otherwise you've missed something.

Dad says they ought to be called American-breds. He says a Thoroughbred is English—an English gentleman, all form, heart, and courage. He'll fight a lion and keep trying to win a race until his heart bursts. But courage isn't always enough.

We need strength, too. When you get a range cow or a Brahma steer on the end of your rope, you need strength to hold. And speed—a horse just has to have speed, or he isn't worth a nickel. If you've once chased a crazy calf through the brush and into a draw, you'll know why speed counts so much.

Of course, the quarter horse has to turn like a cat; he's got to be rope-wise, sensible, and filled with a certain something that makes him go on and on, mile after mile. All of these things, and Copper had them. He was the sweetest three-year-old darling you ever saw.

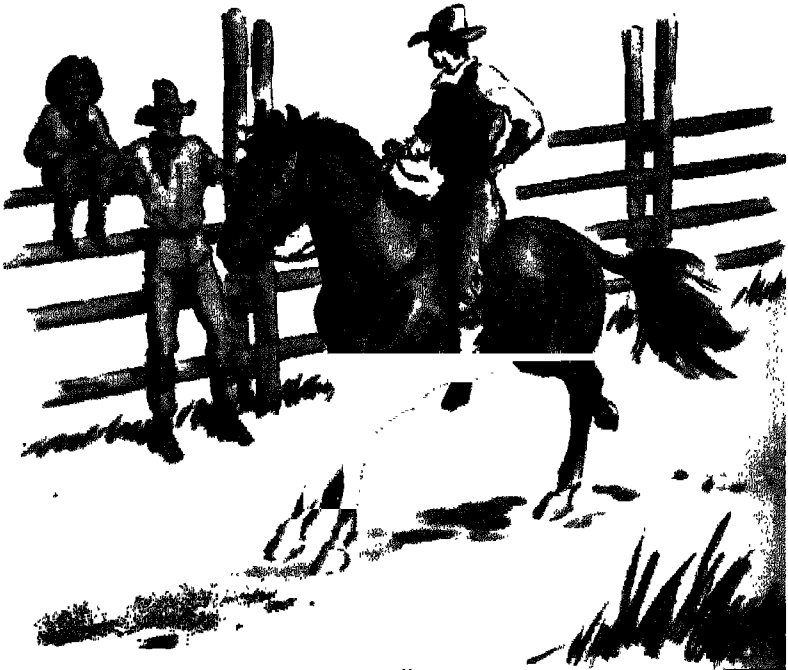
He leaped into the corral when Dad opened his gate, and after he'd buck-jumped the stall kinks

out of his system, he trotted up for Dad's hand on his neck.

"Shiny Pants," said Dad softly, "I'm going to miss you, little feller. But you're going to work hard, aren't you? Going to learn your lessons like a gentleman and do as Bert tells you." He turned to the hired man. "Give him an hour or two in the hills each morning when you finish the chores, then work him here in the corral."

"Is he sensible?" asked Bert.

For answer, Dad slid his arms up over the withers and rolled onto the colt's back. Copper stood rock-steady. I knotted both ends of a tie rope into a bridle and slipped it over his nose. Dad touched him with a heel. He walked out, throwing his feet like a busy little man. Dad reined him right and left and put him through a figure eight.



"You expectin' to work him in the shows?" asked Bert.

"I was going to," said Dad slowly, "in another six months."

Dad came down and tossed me the tie rope. That meant I could sit Copper in the corral. Only in the corral, though. Dad wouldn't let me take him out, because you just can't tell about a colt. But I was satisfied to walk and lope him inside the rails. We were together for an hour while Bert was looking over the spread. Then we put Copper away and drove down to town—Mom and Dad and I.

Dad left a week later. For a time it was hard. Mother kept herself busy, and she kept me busy, too. We cleaned and dusted the whole house, and I had chores to do along with my lessons. Bert Holloway didn't know if he liked this. He said girls were a nuisance, even if they wore levis and did their hair up tight. But I noticed it was only a day or two before he shifted the milking over to me. I made the butter, too. And there were always the burrs to pull from the horses' manes and tails.

I was working on a palomino yearling when Bert put the leather on Copper for the first time. I envied Bert. I wished I could take Copper and ride and ride. Or, better still, I wished it were Dad working the colt while I rode along on my mare. That's what we used to do—just the two of us, riding up out of the haze to reach the mountain rims. It was good. But it wouldn't be nearly the same, riding with Bert. That's why I didn't ask to go.

Bert didn't want me along, either. He was a quiet man who liked to be by himself. Sort of grouchy. And when I saw him take Copper out of the corral, I

"How, on a rock?"

"He came off."

Chet looked at Bert's leather on the sorrel and lifted one eyebrow. "He came off that sorrel? Bert Holloway came off that sorrel?"

I didn't lie. I just didn't say anything. No use to give Copper a bad name; so I just didn't say anything. Chet called some of his men, and we all high-tailed for the canyon. Bert was still out cold. He mumbled and tried to say something when Chet lifted him from the ground.

"Get on down to the ranch, Bess," said Chet. "Have a doctor there when we bring him in."

I rode, and the doctor was waiting when they brought Bert into the spare room. It was a fractured skull and some sort of concussion. The doctor was pretty gloomy and said Bert would have to be moved to a hospital. The real trouble came when they opened Bert's shirt and found some broken ribs. There was the mark of a hoof.

"Never knew that sorrel was a mankiller," said Chet. "Guess you'd better keep clear of him, Bess."

"It wasn't the sorrel, Chet," my mother told him. "Bert was riding Copper."

That did it. I'd been holding my breath and hoping, but that did it. Chet's a big fellow with an easy smile, but his face was serious now. The other punchers nodded. They walked to the corral with me, and you could see the difference in their attitude when they looked at Copper. It was as though he were an enemy. Not of any one man, but of all men. He'd thrown a rider and struck him.

"Copper's a good colt," I said as I opened the stall gate and started in to him.

Chet put a hand on my shoulder. "Maybe you'd better not, honey. I'll leave Rusty Stones here. You just let him take care of the colt."

Rusty Stones was a good rider. But he had heavy hands like so many of those old-timers.

He started out with the idea that Copper was a bad horse, and he worked him that way. Naturally, Copper fought back. Before the month was out, Rusty got hurt.

I saw it happen, and you can take my word Copper didn't strike at the man. He threw him—yes! And the reins twisted around Rusty's wrist. That pulled Copper's head, and, naturally, he reared. When he came down, one hoof caught Rusty on the shoulder.



Chet advised us to turn the colt out after that. I was against it. Copper would only get worse if we let him run wild in pasture. Mother agreed. And she was doubly worried because Dad's letters were loaded down with questions about his Shiny Pants. Was Bert working him nicely? Would Mother send a picture?

I answered all the questions. Yes, I told lies. I told Dad that Copper was working pretty and when the war was over my father would own the finest quarter horse in the country. You could feel the happiness in Dad's answers. But he still wanted pictures.

I stalled as long as I could. I sent snaps of Copper in the corral, but Dad didn't want this. He wanted to see the colt under leather, working.

I was stuck. Bert was out of the hospital, but the doctors said he couldn't ride for six months. Rusty was up and around, but if Dad saw him on Copper, I'd have to answer a lot of questions. So I kept stalling. And worrying. Dad was expecting a furlough soon, and he was coming home to visit his family and his quarter horse.

Then the letters stopped. Two months went past and no word from Dad. Chet had found a hired man to do the chores and run things. Dad's friends had spent a week at the ranch to get in our hay. It was a good crop, and we weren't worried about money, but we just couldn't get a rider. So Copper didn't work. He loafed around in the short corral, and I wondered what I could say when Dad walked in and saw his colt.

I could have saved my worries. Our next letter told us Dad was overseas and was heading for action.

He still found time to ask about Copper. And when were we going to file our entry for the Saugus show? That was a toughy—the Saugus show. If you're from

the West, you'll know what the local rodeo means to a horse owner. The Saugus show isn't a big one, but it's our own show. We put it on each year at Bill Bonelli's place, and all the valley riders trail in bright and early to do their stuff and show their horses. Dad had won the calf-roping four times running, but somehow he'd never been able to take a blue in the stock-horse class. Now he was counting on Copper. So, when I wrote again, I lied. I told Dad I'd entered his Shiny Pants in the stock-horse class.

No sooner had I mailed the letter than I knew I'd made a mistake. Dad knew the date of the show. He'd keep waiting and counting the days. He'd ask about the results. Then I'd have to tell him the truth and break his heart. I'd have to tell him that his daughter was a liar and his colt was a washout. You just can't do that to a father like mine. There was nothing for me to do but to send in the entry and make myself honest again.

That meant that someone had to work the colt; so we started Saturday morning. While mother was busy with the dishes, I slipped the leather on Shiny Pants; then we went through the back gate of the corral and loped for the canyon.

I gave him his head and lifted my chin. The breeze was good on my throat. I laughed out loud, and Copper heard me. His hoofs rolled thunder out of the earth. It's easy to sit a running horse. No work. No effort. You catch the rhythm and help him along, and soon you're part of the running, too.

I pulled him up when he'd gone a half. Running's fun, but we had work to do this morning. Figure eights. Right and left and right again, first at the walk and then a bit faster.

Soon we loped, and now Copper showed me how much he'd forgotten. A dozen times he broke on the turns. A dozen times I brought him back. Then a few short runs and the sliding stop that is bred in the bones of a cow horse.

Days of this, whenever I could slip away from the house. California's sun is hot in May, and I didn't get home from school until after three. That meant working when the sun was high. We sweltered there in the canyon, Copper and I. But soon I had the colt working pretty as a button.

Then came the day when I brought him back to the corral and Mother was waiting for me. She was waving a letter above her head, half laughing, half crying. She didn't even notice I'd been riding Copper.

"Dad's coming home, Bess!" she called.

"How soon?" I asked.

"The end of the week, dear," said Mother. "He's here—in California. He'll be home in a few days."

"Saugus is Saturday," I said. It was a silly thing to say, but it was all I could think about. "Saugus is Saturday, and Dad can show Copper. He'll get a blue in the stock class."

I said that, then I ran over to Copper and hugged his neck tight. I guess I cried a bit, too. I know



Mother was crying. Soon we both ran to the house and started dusting and cleaning and fixing, just as though everything wasn't spick-and-span to begin with. It made us feel better to be working, though. We kept at it all day.

Dad got home Friday noon. Ed Gilmore from the saddle shop in town drove him to the ranch. For a moment Dad just sat there in the roadster next to Ed, looking at the ranch, looking at Mother, and looking at me. Then he lifted a hand and smiled.

"Hello, sweethearts," he called.

We ran to him. We both shouted silly things. I tried to tell him about Copper, but the words were all jumbled. I gave him a big hug. Then I stepped off the running board, so that he could get out of the car. He opened the door and half turned on the seat. That was when I noticed Dad had only one foot. Mother noticed it, too. She pretended not to, and I could see right away I'd have to pretend along with her.

"Doesn't bother me a bit, Ellen," he said. "In a few weeks I'll be good as new."

He was so pale and thin. But his shoulders were just as broad, and his back was just as straight. He's handsome, my dad is. He stood beside the car, tucked a crutch under one armpit and lifted his head to sniff the air. Like I've seen Copper do. He smiled. Then we all three walked to the house. Ed Gilmore was nice. He just drove off and left us by ourselves.

Dad rested a little and drank some orange juice with ice in it. Then he pointed a finger at me and said, "Now I'll see Shiny Pants—tell me about him."

Copper almost tore the corral gate apart when he saw Dad. He tossed his head and slapped his forefeet and wiggled all over like a big cat. I opened the

gate, and Dad stood and just let the colt nuzzle his face. Soon he slid his arms up over the colt's withers, and for a moment I thought he was going to climb aboard.

"He's going to win you a ribbon tomorrow," I said. "We'll get a rider."

"Betcha life!" said Dad.

We trailed up to Saugus early, and Dad spent an hour shaking hands with his friends.

I got Dad and Mother in a good box down front and dusted around to find a rider. No luck. All the good men had their own entries to ride, and the next-best riders had an excuse. I understood. Copper had a bad name. They didn't want any part of him. Even when I told them I'd been working the colt for months, they just didn't want any part of him. There was nothing to do but write down my own name. So I did it.

I'd missed the grand entry, but it was just as well. Riding a colt in a lonesome canyon is one thing. Riding him in a rodeo arena is something else again. Copper was high. When Abe Lefton, the announcer, called the stock-horse class, Copper started crowding. There were twelve in the entry, and we were sixth in line. That is, we were sixth coming through the gate. By the time we'd reached the center of the arena, Copper had roughed his way to the lead in spite of anything I could do. Then he paraded. He picked his feet high and arched his neck, nostrils wide and eyes on fire. Oh, he was beautiful. Beautiful.

Abe was calling out the entry list. He's a good announcer and always has some clever remark when a horse does the unusual. I hoped he'd joke about

Copper. Just something funny. But he didn't. Instead he looked at us over the microphone and puckered his lips for a long, low whistle.

"Bess Travers, riding Copper!" he said. "And folks, I wouldn't change seats with that little lady for a million. Bess Travers, riding her father's quarter horse, Copper! He's the colt that took Bert Holloway out of circulation for six months and then repeated on Rusty Stones! He's——"

"No, Abe!" I called. "Please, no!"

Then I heard Dad calling me from the grandstand, "Bess, girl!" His voice was high. I'd never heard it like that before. "Bess, come down off that colt! Come down!"

I shook my head. It was the first time I had ever disobeyed my father, but I shook my head. I think Copper had heard Dad's voice. He answered sharp when I reined him into position. I'd taught him to stretch, and now he held it, head high, legs perfect, waiting.

I eased him once or twice while the other riders showed their horses. And how those riders did their stuff! Mat Cowen had the crowd standing and yelling. Ed Griffen made them cheer. Then it was our turn. I dropped my heels and straightened my back, waiting for my name. It didn't come. Abe passed me up.

I should have ridden off. But I couldn't. Like Dad says, "There are some things a man has to do, and he does 'em." I touched Copper with my spurs and started toward the judges.

The colt walked out, pretty as the flag that flew at the pole. Nervous? I could feel every muscle and tendon in his body pulled tight as a bowstring. And why not? You'd be nervous, too, if it were your first



time out before thousands of people in a big arena. I was just as frightened as Copper. But I didn't show it. Neither did he. We walked to the center of the arena and stood steady, waiting for the nod from the stock-horse judge.

Time to show. I loosened the reins a trifle and said a quick prayer. "Please don't let him break at the turn." He didn't. We loped a perfect figure eight, and Shiny Pants used the same hoofprints when he did it the second time. "Good horse," I whispered. "You're a good horse."

We walked to the end of the arena, turned, and ran full length for the called stop. Copper whistled the wind past my ears. The judge lifted his hand, but

seemed to hesitate. The colt's legs were moving like bronze pistons. A powerhouse, that's what he was. A driving, racing, thundering mass of bone and muscle. The judge's hand came down. I leaned back and snatched him up. Copper wrote a screaming eleven, dragging his pants an inch from the dust.

We wheeled to the right and wheeled to the left. Waves of sound were rolling across from the stands. I guess it was the crowd yelling, but it sounded like the Pacific thundering against the beach during a storm. Copper was wet now. Not from the work. His nerves were twitching, and he was pushing short harsh blasts from his nostrils as I backed him straight for twenty feet.



The sack of sand was set out, and I was lucky enough to drop my loop over it. Of course, it really doesn't matter. An attendant will place your loop if you miss, but it's nicer to make a good throw. Abe Lefton was talking into the microphone as we worked under the rope. He was saying something about Bess Travers being a chip off the old block. I wanted to cry, but I didn't. Not in front of all those people. I ran Copper from side to side, and you should have seen him turn square back each time he reached the end of the rope.

One more test—I had to climb down, walk to the sack, and put one foot on it while Copper held the rope taut without any signal from me. He did. But beautifully. I stepped back into the leather, and it was all over. Nothing to do now but ride to the far end of the arena and wait.

"One moment, Bess!" called Abe over the speaker. "Hold that Copper horse right where you be!"

The judges came toward me. One put a hand on Copper's rein and walked us toward the stands. The officials were waiting, all grouped about a man. They stepped aside, and I saw Dad. He had a blue ribbon in one hand, and he was smiling.

"Come down, Bess," he said. "Come down and get your ribbon."

"It's not really mine," I told him. "Shiny Pants won it for you."

"Come down off that horse," said Dad again. His eyes were bright and happy.

I came down. And Dad pinned the ribbon on my shirt. Then he put an arm over my shoulder, and we went back to the stand to watch the rest of the show with Mother. He was the happiest man that day.

Builders of America





News from the New World

by E. R. GAGGIN

The week after St. Nicholas' Day

MY SWEET MOTHER,

We have reached the New World. But we are still on the water. And it is exceedingly cold.

We did not land in Virginia after all! We did not land anywhere as yet. But we have before us a wilderness which we shall claim and settle and name as we see fit. Today my father and I set foot upon it for the first time.

Miles Standish chose sixteen men—blazes, I count as a *man* now!—to make an excursion, at a reasonable distance inland, to explore this unknown land. We brought back much that should comfort those who remained on the *Mayflower*.

First, we found a great earthen pot that was filled with maize—so my Uncle Samuel called it—a most amazing growth! It has kernels of red, yellow, and

blue! The partly buried pot was evidently used as a storehouse by some savage. We took the maize back with us, and Miles Standish has it in charge. It is to be saved for seed for our first harvest and will be equally divided among the men.

Next, we came upon a spring of fresh water. Lying full length on our faces before it, we lapped until we were like to burst.

All about us were dried herbs and simples and bushes filled with withered berries. We were gathering what we could when suddenly we were almost deafened by a tremendous blast of gunpowder.

"The savages have come!" shouted Giles Kerry. And every one of his coral hairs stood on end to have a look for itself.

But Miles Standish had the right guess. "It's the *Mayflower*!" he cried. "The ship's been blown up!"

Well, it wasn't quite blown up, we discovered as soon as we could get clear of the bushes. The craft was still riding at anchor in the shallow bay, but flames were shooting from her decks most fearsomely. We were downright spent by the time we had reached her decks and conquered the burning. Only then was there time to investigate the cause of the accident.

It was the fault of a meddling lad named Francis Billington and another, Timothy Belt, both Pilgrims from Amsterdam. God knows what the women were doing to allow two such lads the freedom of the cabin with no one to watch over their doings.

And one, Francis, 'tis now said, got his paws into our store of gunpowder and scattered it all about the cabin of the *Mayflower*. Trails of the stuff led everywhere. Then either Timothy helped a spark from

the stove on its way, or the spark escaped bounds of its own will; nobody really knows. Nor does it matter. It is only by the blessing of God that everybody on the craft wasn't blown heavenward in one terrific blast!

I will put this parchment aside now, until there is more time.

Young Matt, son of Matthew Over, Pilgrim

December 22, 1620

SWEET MOTHER,

We have ceased hovering over the New World like a gull on the wing, as my father said. We have dropped upon the land and started building our nests. This is a fair spot upon which we shall build our first city. A plentiful supply of sweet water flows through it.

We would like to call the settlement "New Leiden," but William Brewster holds that we must cling to the fact of our *English* birth. And so we will call the place "New Plymouth." The last we saw of the Old World was Plymouth—the first sight of the New World is to be Plymouth!

Before leaving the *Mayflower* really to study and plot out the site for our colony, we had a meeting in the cabin, and there it was agreed—as it had been talked over before—that each man amongst us should have equal share in the soil and equal voice in the government. I discovered, then, that I do not rate as a man yet! Only when there is labor to be done.

Goodman John Carver was chosen to be the first Governor of New Plymouth; Miles Standish to head its military; Elder Brewster to care for its souls; and good Doctor Fuller to heal its bodies.

Thereafter, all together for the first time, we went ashore—men, women, and children. The women and

children rambled far and wide, taking pleasure in everything. When they could endure the searching wind and the bitter cold no longer, they were returned to the warmth and comfort of the *Mayflower*. But the men—and lads—remained on land and began the business of erecting a shelter in this wilderness for all of us.

The master of the *Mayflower* is anxious to be on his way back to England, so we will not erect separate dwellings until later; first of all, we will build a Big House that shall be a temporary shelter for us all and for our small amount of gear against the elements and possible marauding savages.

I have chopped logs today until the sleeve is ripped from my doublet. I'm afraid that I have not yet finished growing, either; my garments give at the seams so readily.

January 18, 1621

My SWEET MOTHER,

I find that I will be obliged to write you a little of our happenings before the day of the explosion on the *Mayflower*, so that you may understand our latest plans.

There was a great sickness, and many of the women died. With the difficulty of building dwellings at this time of year along this coast, and with so many of the women gone, so many homes broken, it was decided to erect as few shelters as possible this winter, dividing the lone men and children among the more fortunate households where a woman is in charge.

The plan of New Plymouth, as now decided, is to be the plan of Bell Alley in Leiden. We are to build two rows of tiny dwellings; they will face each other—nineteen dwellings in all, running from the shore of

the quiet bay inland to the forest—and there will be a fair street between. Closing the street at the forest end is a Big House, just as there was in Leiden.

We shall worship in the Big House; there, too, will be our hospital, there we are to store our gear, and there Miles Standish is to have his headquarters, with cannon on the roof that will rake the street to the shore or the forest, from whichever point danger threatens.

Our congregation consists now of 102 souls; so you can imagine the planning it will take to settle them into nineteen dwellings. My father and I will erect our own dwelling at the far end of the street against the strand and we will be allowed to occupy it alone, since it is understood that almost as soon as it can be made ready you will be here. (Don't forget to bring extra gear and plenty of fustian strips for patching! Father says he would be obliged to put me in a firkin if it were not for Nabby Wain's skill at patching.)

More dwellings will be erected, of course, as more families come here from Leiden, Amsterdam, and Londontown.

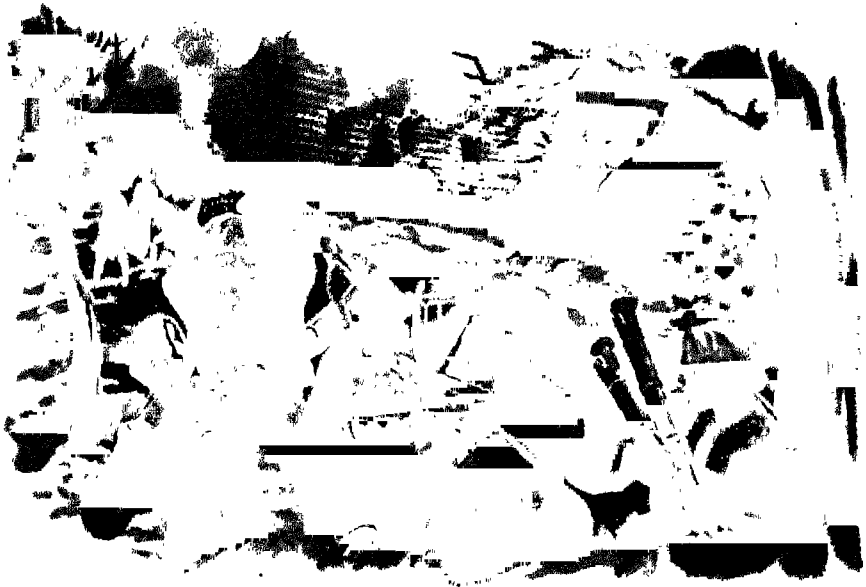
I don't know as I made plain to you *why* it takes so long to erect shelters. Of course, the weather is severe, but, aside from that, we have so little time in the day to work on our own log-cutting. You see, we must get out that shipload of staves that the *Mayflower* is to carry back to Londontown with her, to pay for what is still owing for the hire of the craft. John Alden is in charge of this work, and he keeps us to it. You may be sure we bend to the labor right willingly, for we want to pay the debt. As long as we are under debt to Londontown, just so long are we tied to the English shore. And we would be free.

The next day!

Dear God, my sweet Mother; we are suffering just one affliction after another! This time it is the Big House! It is gone.

My father selected and shaped the lumber for it; those who had learned the mason's trade in Leiden laid the foundations; others raised the walls and fitted the roof. But there was none drilled in the art of chimney-laying. Goodman Hughes did his best, but it let fire through to the thatched roof; there was a high gale raging and no water at hand, and that is the tale.

Inside we had stored for safekeeping all the gear we had—the bedding, household effects—everything that had been kept until last week on the *Mayflower*. Inside, too, was Miles Standish's arsenal. Inside, too, were Governor Carver and William Bradford, both sorely ill. Thanks be to God, we were able to save these two from a terrible death; and we rescued the muskets and gunpowder. Nothing else.



My father and I sleep now upon balsam boughs with other boughs to cover our shivering bodies. When you come from Leiden, add plenty of plaids to your gear, and a supply of those down coverlets that the Dutch use for bed covering.

The ashes of the Big House were hardly cooled before we began clearing the site and preparing to erect another Big House on the spot.

February 5

Well, once again we have a Big House—and today we helped Miles Standish lift his cannon to the roof and plant them, one facing north, one facing south, one facing east, and one west.

Every family, too, is under a roof, and we are able to survey our colony with pride. There are other colonies in the New World that have more—wealth and finer dwellings and a charter from the King.

But the Pilgrims have no wealth, only strong and willing arms, stout hearts, and a thirst for freedom. We have no charter from the King! We have fled to escape his hatred. But we have a colony founded on Morality, Education, Law, and Freedom. Those, we have decided, shall be the four cornerstones of our building.

We Overs have a comfortable home of *one* room—later there will be more! We have two narrow beds of balsam boughs, a table, an open hearth, and one slit-ted window that faces the forest—because it is from that direction that we expect whatever danger may befall us—and one beside the door. The windows are not much more than a crack in the wall, and are unlatticed—covered by sheets of greased parchment against the gales. We dared not make them larger lest a savage or a hungry

wolf force entrance. We have been ceaselessly tormented by wolves. The savages, so far, have been friendly, but the wolves are fierce.

The floor of our home is of pounded earth—before you come, it will be planked. And we have *no rushes!* We sweep ourselves clean as any Leiden kitchen with the besom that stands in the corner where the scullery will be before you come.

A musket hangs over the hearth—and one over each bed.

In the division of the small amount of *Mayflower* gear that we saved after the burning of the Big House, we drew an iron pot, and that now stands on our hob. We will need ladles and trivets, pots, kettles, and spits, when you come.

February 6, 1621

SWEET MOTHER,

Just as we were all under shelter and beginning to feel a measure of contentment, the wilderness bared its fangs and showed us what new it had to offer in the way of misery! It was a storm of sleet and ice, and it came last night, and never could a worse storm be imagined!

We are buried to our chimney pots in snow—Leiden Street to the forest and beyond is level with snow of a depth far more than my father is tall. And over the snow is spread a stout blanket of sheer ice.

We cannot get about. If we could walk upon the ice, we would hardly dare to, for fear of breaking through and smothering in the snow below. And yet we cannot bide inside our dwellings if this storm is to last many more days. Already we are beginning to feel pinched for food.

There is plenty of fresh meat in the forest, but we dare not, in fact we *cannot*, walk upon the ice to get to it and set the snares. There is fish in the bay, but we have no small craft as yet.

A night and a day later!

Even as I was writing the above words, my sweet Mother, I heard a noise outside the door where no noise had been for a matter of three days, and, peeping through the slitted window, I saw the arm and shoulder of a savage. Miles Standish has drilled us to spring for our muskets in such an event, but I can't yet turn a musket upon a man. Only on wolves.

So I unlatched the door and stood ready to guard my father's dwelling with my bare fist, if need be.

And there stood my *Uncle Samuel!*



Always, in time of need, there is my Uncle Samuel.

I forgot to tell you before that he was with us, after landing on this coast, only long enough to get a roof over the first Big House. Feeling then that his usefulness here was spent, he left us to explore the wilderness to the north and west and discover what might be the nature and intentions of the savages who dwell there. Now, as though led by the hand of God Himself, he was returned.

And with him, a friendly savage.

And with them both, a slain deer, unbelievably fat!

There was a second deer outside on the ice. And New Plymouth ate last night! Blazes, there was food for all and to spare.

Now, you will be saying, how could a savage and Samuel Brode tramp the forest and kill two fat deer when the Scrooby men were so helpless before the snow and ice?

It was like this, although I doubt if you will be able to understand, never having seen anything like the thing which I shall attempt to describe. Both my uncle and the savage were wearing great, flat, curious shoes of latticework that bore them, quite easily, atop the crust of ice. We have studied the things already and shall copy them. Never again will the snow and ice be able to hold us prisoners within our dwellings!

March

Winter is drawing to a close. My father reminded me last night that, were we in Scrooby, we would be rolling the rich meadows beyond Scrooby Waters and making ready to set hops. "Open the door, Young Matt," he said, "and see if you can smell a new spring come to New Plymouth!"

I opened the door. But all I saw was a fog over the bay and a shallop approaching the strand. And then, as it landed, a red man. "There is a savage coming boldly up the middle of Leiden Street!" I cried to my father.

I slammed and latched the door, just as my Uncle Samuel came into the room from the scullery.

"God's mercy, open that door, Young Matt!" he shouted. "And summon all the men of our colony to the Big House! This be the noble chief, Samoset! We must take counsel together and do him honor."

Well, we met—all the men of New Plymouth—in the Big House to do honor to the red man, Samoset. And after much kindly talk, he left and promised to return with Massasoit, another great chief.

And that he did. He brought Massasoit, and Massasoit brought sixty of his braves! And I thought we should pop the walls of the Big House apart when we all crowded inside. We smoked a pipe of peace together—sitting in a circle on the floor of the Big House!

April

Yesterday was the day that I first dug spade into the plot of ground that is to serve my father and me for our first crop and harvest in the New World. It was hard work, and the look of the soil did not satisfy me when it was upturned. I lifted a clod and examined it closer, pressing it between my fingers.

"Soil very poor," said someone behind me. "No crop!"

I whirled about. And there stood Samoset. And with him, Squanto, that lad who had been stolen by the French, sold as a slave in Londontown, and learned the tongue and the ways of white men.

"Samoset likes this new colony," Squanto told me.



"He says you are kind and peaceful, that you love freedom as does the red man, and that you are very strong and brave, and that you have suffered much. He has brought me to help you. He will return to our tents, but I shall stay as long as I am needed. I will show you how to make this soil rich enough to grow maize."

Blazes! I was so grateful that I was dumb. But both red men must have read my face, because they waited for no words, but looked at the clod in my hand wisely.

"Fish!" Squanto explained.

"Fish?" I cried. Surprise loosened my tongue. I broke the clod apart, expecting something live to swim forth, but the savage shook his head.

"The soil must eat before it can produce!" he explained. "It must grow fat on food—now it is too thin.

It must be fed fish in large quantities, and then left to rest for a little while, and then it will be ready to grow maize."

Squanto has taught us all the strange ways of the wilderness. He is a noble lad and a kind friend to the Pilgrims of New Plymouth. Even John Alden, our cooper, learned from Squanto the way to fell a tree more quickly and thus make less arduous the labor of clearing the forest away from our dwellings.

He taught Giles Kerry and me how to take eels as the red men do, by trampling them from the mud with bare toes; he showed us where the fattest fish ran and how to make fishhooks of bone and nets of fiber, and how to oust clams from the sand of the shore with nothing more than a sharpened stick.

My friend Nabby Wain was at our heels wherever we went, learning of the wilderness with us.

"You only teach the lads, Squanto!" she complained one day. "Don't the maids of your tribe know aught of value or interest?"

"Much. Woman's work!"

"Foosh! No matter if it is woman's work, you sit right down here and show me some of it!" she cried.

Squanto gathered sweet scented grasses then and showed her where to find more. And when we had enough, for Giles and I helped with the grasses as Nabby had helped weave the fiber for our nets, Squanto showed us all how to make mats of them for the greater comfort of our dwellings.

He showed Nabby, too, how to fashion trenchers of wood and adorn them with the juice of certain berries. He made pots of clay for the hearth that serve nearly as well as the iron pots which we lack. And one day he put handfuls of dried beans and a chunk of fat meat

in our clay pots, covered the beans with clear water, and sank the pots in hot ashes. We could hardly wait the hours he said we must to uncover the result. But when the ashes were scraped away and the pots dragged out, an appetizing odor steamed forth that brought all the women of Leiden Street running. And after that it seemed as if we could never get our fill of baked beans.

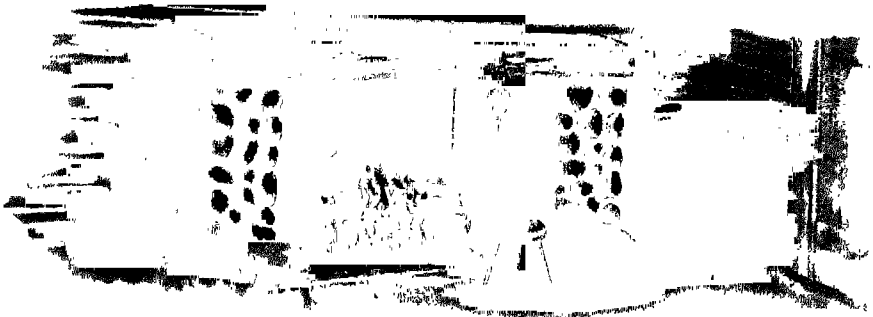
May

With the coming of May, we have spent more and more happy hours in the forest. Strange shrubs that were naught but unsightly twigs heretofore have burst into tender foliage, and then into bloom. Some we have recognized and hailed as friends. Others I have marked in my mind for your study when you arrive.

"Time flies faster than a bat on the wing!" my father sighed last night, and poked the blaze. "Your mother will be on her way to join us soon, lad—mayhap on the return trip of the same vessel that carries this letter you've been so long a-writing. Tomorrow we'd better get at that bit of timber we were going to shape for a shelf atop the hearth, here. Your mother will want to set up her ring of elephants as soon as she pokes her pretty little head inside the door."

And so I finish this packet of news, sweet Mother, and hope it will bring you to us soon.

Your son, Matt Over





A Coat for a Soldier

by FLORENCE MAULE UPDEGRAFF

AT LAST Deborah's dream was about to come true, a dream that she had cherished well over a year now. Ever since that memorable spring morning in 1774 when her father had given her the wool of a sheep, the fourteen-year-old New England farm girl had been absorbed in the fulfillment of her plans. She had determined to learn every step necessary to convert the fleecy wool into cloth and to make a mantle for herself, a mantle more beautiful than that worn by any other girl in the Colony of Massachusetts.

Now Debby recollected with pride how she had worked toward her goal. Not only had she shorn the sheep herself; she had carded and spun the wool, colored it a soft golden tan with dye made from dried butternut

hulls boiled with onion skins, and finally woven the cloth itself. Now she was holding it in her hands, running her fingers across the soft-textured fiber while her heart swelled with pride. Soon the mantle would be a reality. Her happiness was intensified as she remembered her other good fortune: Father and young Uncle Tom were back from the terrible war, both wounded, but both safe.

Deborah ran into the kitchen to show the finished cloth to Mother, who at once became all interest in getting the mantle made from it. "I'm agreeable to sending for Mistress Higgins, the seamstress, to help you make it, Debby, so be you wish it. I understand she's been in Boston lately working in a tailor shop to learn the trade of mantua-maker. She'd make you a fine stylish cloak and no mistake."

Deborah sat silent a moment, thinking. "Thank you, no, Mother dear," she said at length. "I really want to make my mantle myself. I've done all else, and I'd like to do that as well."

Father gave her a pleased smile. "That's as I hoped you'd decide, Daughter. Every girl should learn to be deft with her needle, and seems like this is a right proper thing to learn on."

So Deborah started to plan for making her mantle with a delight in the thought of it she had not felt since the war began to take the joy out of everything. She hunted out one of her old school copybooks and covered page after page of the unused sheets with sketches of possible designs. She was engaged thus one evening when Mr. Webb, the card-miller, arrived.

"Thought I'd best ride over and see the invalids," he announced, "and since the postrider was in today, I stopped by at the inn to see was there anything for

your house. And sure enough, there was this letter for Tom."

Uncle Tom took it with pleased curiosity. "Ah," he exclaimed, "'tis from Matthew. Now we'll get news from the front."

He started reading with keen interest the letter from his close friend, Matthew Foster, but stopped presently to tell them, "'Tis about the ceremony when Washington took command of the army. Would all of you like to hear what it says?"

Everyone spoke at once to say yes, and Uncle Tom started reading aloud:

"Last Friday afternoon General Washington took command of the troops. The ceremony was held on the Common at Cambridge, and some sixteen thousand men were in line. We had made ourselves as presentable as might be, but I'm bound to say the General must have thought he was getting a sorry-looking army. He arrived riding a great bay horse and took his stand beneath the great elm beside the green. He is an oversized man of imposing countenance and commanding bearing. He was wearing the buff and blue uniform of his own Virginia troop in which he is a Colonel and looked very handsome and most elegant compared to us.

"He spoke briefly to us; the flag designed for the new Army of the United Colonies was presented to him, and then the commons fired a salute and the troops and all the crowd broke forth into a great huzza.

"The flag is fine in some ways; but I, in common with many, do not find it entirely to my liking. The field is made up of thirteen alternate red and white stripes representing the thirteen colonies.

In the left upper corner by the staff there is a blue canton in which is the St. George cross in red imposed upon the Scotch St. Andrew cross in white—the same as the English Jack. For that reason the flag is to be known as the 'Jack and Stripes.' Many feel we might better have a flag that did not include this emblem of the British Isles. So 'tis said the committee that designed the other flag, of which Benjamin Franklin is chairman, has been asked to make another try at a design. There is a rumor that the new flag, instead of having the Jack in the upper corner, is to have a constellation of thirteen white stars, one for each colony. They say that, as the present flag is called the 'Jack and Stripes,' the one with the stars substituted would be called the 'Stars and Stripes.' Seems that would be a flag a man would be proud to carry. Tell Debby, so be 'tis adopted, I hope she'll make one for the troop."

Deborah was so taken with the idea of making the flag that she quite forgot her training about interrupting and broke in to ask excitedly, "Oh, Mother, may we make one?"

Mother gave her amused little laugh. "Well, we'd best see it is adopted before we plan on it."

"Oh, I hope it will be," cried the girl. "The Stars and Stripes would be such a fair flag."

During the interruption Deborah had created, Uncle Tom went on reading the letter to himself. When she turned back, she noticed that the expression on his face had changed to a look of deep concern.

He gave a heavy sigh, folded the letter, and laid it aside. "The rest wouldn't interest you," he said. And though all insisted it would, he would read no more.

The remainder of the letter was read aloud, however, during the morning church service the following Sabbath. Mr. Craig, the minister, had come to see Uncle Tom and had been shown the letter. The minister had read it with great interest and then asked permission to read it aloud at meeting.

By the time the Sabbath arrived, Uncle Tom was able to be up and insisted on going to meeting to give thanks for his recovery. It was a day of deep rejoicing and thankfulness for all the family, for it was the first time in more than two years that the entire family had attended meeting together.

When they arrived at the meeting house, everyone flocked about to greet the returned soldiers. Among those who came was Mistress Higgins, and when Deborah saw what she was wearing, she lost interest in everything else. The seamstress had on a hooded wrap of a style Deborah had never seen before.

Mother noted it, too, and asked Mistress Higgins about it.

The little seamstress turned about with conscious pride. " 'Tis the latest vogue in Boston," she answered.

Deborah was seized with doubt. Would it be better to have this new style instead of the cloak with little shoulder capes which she had planned?

There was no time to go into the matter, however, for just then the second bell rang and the people all filed into the meeting house and took their places in the pews.

Mr. Craig made a prayer of thanksgiving for Uncle Tom's recovery and later during the sermon read parts of Matthew's letter.

The part he laid most stress upon was the part Uncle Tom had refused to read aloud. When she heard



it, Deborah knew why he had looked so distressed and had not wanted to let her or Mother hear it, for it was all about the suffering among the soldiers—their lack of clothing, blankets, and food; the tragic shortage of powder, shot, and even guns. One sentence struck out at the girl just as her mind was beginning to wander a bit to consideration of the matter of Mistress Higgins' hooded cloak. . . .

"Practically none of the men have warm coats for the coming winter. Unless General Washington can devise some way of getting them, the cold is like to prove as great a foe to his army as are the British."

Deborah's mind came back to attention with a wrench of guilt. She would meet the winter's cold with a fine new cloak—a stylish, elegant cloak with a triple cape and a fur tippet, while the soldiers who were fighting to maintain the rights and liberties of the Colonies would be coatless.

Mr. Craig laid aside Matthew's letter and picked up another paper. "Friends, I have not read you that letter from one of our own lads only to harrow up your feelings. I have read it for a purpose. The last post brought also this paper I hold in my hand. It is a Resolve from our Army Headquarters in Cambridge. It is a call to the different towns to furnish coats for those coatless men—thirteen thousand coats to be delivered ere the snows fly. The appeal is addressed to the officials of the towns; but in truth it should be addressed to our women, for so be coats are to be provided, 'tis they will have to spin and weave and make them."

He paused and, leaning out far from the pulpit, looked about the room. "Answer me, women of this town, will you do your share? - Will you make the number lotted to us?"

With one voice the women answered. It sounded as though every woman had spoken. The walls of the old building rang with the response.

Mr. Craig straightened up with a satisfied expression, but his voice was husky as he said, "I knew I could count on you. Now for practical details." He held up a swatch of dull brown cloth. "You see this bit of cloth. Its purpose is to show the color and kind of material Army Headquarters has selected. There is also a page of instructions for making the coats. During the nooning Mrs. Craig will be in the noon-house and the women who wish to make coats can give their names to her, copy off the instructions, and get a scrap of the cloth for a guide as to color. God bless you all and reward you for your work by maintaining freedom in our land."

The tears were running down Deborah's cheeks and

dropping unnoticed on her clean kerchief. She knew what she must do. The appeal for coats seemed a direct answer to her feeling of guilt at having a coat when the soldiers had none. She must use her cloth for a coat for a soldier. It was a stout cloth, and a good dipping in butternut dye would recolor its golden hue to the proper dull-tan shade. She had just one sharp pang of renunciation and then was quite content.

Deborah was late in reaching the noon-house after service because she stayed behind to help Father and Uncle Tom. When she got there, Mrs. Craig was surrounded by a great group of women waiting to give their names as coat makers. Mother was there, of course, and Grandmother. Deborah made her way to them through the press and laid a timid hand on Mother's arm. Mother looked about at her, surprised. "Oh, Daughter, 'tis you. What is it, child?"

Deborah's voice trembled a little as she answered, "I want to give my name, too. May I, Mother?"

Mother hesitated a moment, then answered doubtfully, "I think 'tis hardly needful, Daughter. There will be two from our house, and that should be sufficient."

"But I want to, Mother," Deborah insisted.

Emotions warred in Mother's face. For a moment she seemed unable to speak; but at length she said in a voice that was strangely gentle, "I'd not do that were I you, my dear. You need your mantle sorely, and you've planned on it so long."

"But I'd take no joy in it now, Mother, not a bit. Not with some soldier being cold. Suppose it were Father!"

That liquid look that always betokened strong

feeling came into Mother's eyes. For just a fleeting second she laid her hand against the girl's cheek. "Very well, Daughter," she said, and her voice was deep with tenderness. "Give in your name to Mrs. Craig that you, also, will make a coat."

Making a man's coat was a tedious task for anyone in those days, because all the sewing had to be done by hand. First, Mother's and Grandmother's length of cloth was stretched out on the floor, and with much twisting and turning and replacing of the pattern the pieces for two coats were finally successfully cut from it. Then Deborah's cloth took its place. Grandmother showed her how to lay the pattern, and, almost holding her breath lest she make a mistake, the girl cut the pieces. Then Mother showed her how to notch her seams as a guide in putting them together and, since pins were far too rare and precious for such a use, the right two were fastened to-



gether with smooth thorns from the Osage orange tree which grew in the lane. The two pieces were then sewed together with tiny stitches which had to overlap to make a firm seam. It took hours of patient stitching to make such a seam. For Deborah the task was a particularly ambitious undertaking, because she was, as yet, barely a beginner with her needle. But Grandmother showed her what to do, and Mother kept a watchful eye on the quality of her stitching, and soon she was able to produce a seam which they approved.

Every day when the housework was done, they all sat down together with their coats. Sometimes they chatted as they sewed. Sometimes they sat stitching in silence, each busy with her own thoughts.

Deborah felt she liked the quiet times best. She liked to think of all the women in the Colonies sitting sewing in quiet kitchens, just as they were. Thirteen thousand coats, the Resolve had said. That meant thirteen thousand women making coats—almost as many women as there were men in the army.

"We're an army, too," she thought. "We're fighting for the Cause of Freedom in a way of our own."

She looked from Mother to Grandmother. "Our names will be inside the coats we make," Deborah reminded them. "Mrs. Craig said we were all to make a tag with our names on, and our town as well, and sew it in our coats."

"To be sure," agreed Grandmother. "But I'd have some other token, too, sewed in the coats, did I have my way. A kind of dedication to remind the men of the service women give."

"A kind of dedication"—Deborah's mind repeated those words as she sat sewing afterward. They gave

her a thought which made her smile a little secret smile inside herself. She could work out a dedication and sew it under the name tag. No one would see it; but it would be there just the same. She began to think of how she would make it and what she would have it say.

Before she went up to her bedchamber that evening, she hunted out a strip of linen and a lot of Grandmother's finest colored wools. In the secrecy of her chamber, by the light of a flickering candle, she wrote out the wording that she had planned and then began to work it in cross-stitch, done with the colored wool on the strip of linen in the same way she used to make samplers when she was a tiny girl. When she felt she must stop to go to bed, she hid her work in a drawer of her chest under her clean shifts and night rails.

Each night after that she worked a time before she went to bed, and before long the dedication was finished and laid away in the lacquer trinket box in which she kept her kerchiefs.

One Sabbath morning Mr. Craig announced the day on which a young gentleman from Washington's staff was to be in the town to collect the coats that were ready.

When the day came, the three coats—Debby's, Mother's, and Grandmother's—were neatly pressed and laid out upon the table well before the time in the afternoon when the visitor was expected. Mother had put on her second-best gown and her finest frilled cap, and her eyes were all asparkle with excitement.

Mother folded her coat into a neat package and tied it with a length of stout warp thread. Grandmother started to do up her parcel as well; but Deb-

orah was not ready to do so, because she had not yet sewed her dedication into her coat. She now made an excuse to go up to her chamber so that she might do it, saying that she had left her name tag there.

When she was alone in her room, she took the dedication from her trinket box and smoothed it out so she could read once more what she had said. The words stood out, brave in red and blue and yellow and green letters, with the capitals gaily embellished with embroidered flowers. Her face glowed as she reread the words she had worked with such loving care: "In behalf of the Liberty my forebears came to this land to implant, I, a young female, who cannot bear arms for the Cause of Freedom, do dedicate this, the work of my hands." She folded the linen strip into a size that would be concealed by the name tag and sewed the tag down firmly above it. Then she changed her cap and put on a fresh kerchief and apron and hurried downstairs.

The kitchen was empty. Mother had evidently gone into the best room to await their visitor in state, and Grandmother to her chamber to freshen herself also. A second parcel of her coat lay beside Mother's on the table.

Deborah did up her coat just as she had seen Mother do and placed the package beside the others. Then she went over to Grandmother's chair beside the window and sat down to await the coming of the collector.

Soon she heard the sound of wheels in the drive at the front of the house and at the same moment Mother's voice calling, "The collector is here—and, oh, what a fine young gentleman!"

The knocker sounded. They gathered up their parcels and, close one behind the other, filed out of the kitchen through the little entry hall—all three erect,

high-headed, stepping with the light, firm tread of spinners.

Again the knocker sounded. Grandmother opened the door, with the other two grouped just behind her.

On the doorstep stood a young gentleman in the blue uniform of Washington's staff. His white boots were immaculate, and their glossy black tops were polished till they glistened in the sunshine. Beneath his black tricorne hat, bound with white braid and trimmed with a jaunty cockade, his hair was faultlessly powdered, rolled, and clubbed.

At sight of the ladies he brought himself to a smart salute. "The General's greetings, ladies. In the name of the Colonies and the Cause of Freedom."

Grandmother swept him a curtsy. "Our greetings to his Excellency and to you, sir."

"I am told there is a coat here to go to Continental Headquarters," he continued.

Grandmother drew herself up proudly, "Nay, sir, there are three from this house. One from myself—" she handed him her own parcel—"a second from my daughter-in-law—" Mother proffered hers with a graceful curtsy—"and a third from my young granddaughter." She paused, waiting for Deborah to come forward; but Deborah had been overtaken by shyness and was hanging back behind Mother. Grandmother drew her forth, urging gently, "Come, child, give your coat to the gentleman."

Deborah held out her parcel timidly, and the man took it with the kind, indulgent smile that grown-ups reserve for children. Then he looked questioningly from the girl to Mother and back to Grandmother. "The gift of the little lass to the Cause, I assume—but not made by her, surely."

The smile and the assumption swept away Deborah's shyness and stung her into a quick retort. "But it is, sir—every bit. I e'en sheared the sheep myself."

The young man turned to Mother and his words made Deborah's heart swell near to bursting. "You should be proud, Madam, to have given the Colonies such a true little Patriot."

Mother opened her lips to reply; but Deborah gave her no opportunity. Something swelled within her which made it beyond her power to remain silent.

"Nay, sir," she cried, "'tis I should be proud—" There was a new ring in her voice, and her face was glowing with that same look of fervor and devotion. "—proud that, though I am but a young damsel, I too can serve America." Then, suddenly, she was just a little girl again, and her voice broke on a note of tearful gladness. "And, oh, sir, you've no notion how happy I'll be this winter knowing that some man fighting for the Cause of Freedom will be warm wearing the coat I made for a soldier."





The Oregon Trail

by ARTHUR GUITERMAN

Two hundred wagons, rolling out to Oregon,
Breaking through the gopher holes, lurching wide
and free,
Crawling up the mountain pass, jolting, grumbling,
rumbling on,
Two hundred wagons, rolling to the sea.

From east and south and north they flock, to muster
row on row,
A fleet of ten-score prairie ships beside Missouri's
flow.
The bullwhips crack, the oxen strain, the canvas-
hooded files
Are off upon the long, long trail of sixteen hundred
miles.

The women hold the guiding-lines; beside the rocking
steers,
With goad and ready rifle, walk the bearded pioneers
Through clouds of dust beneath the sun, through floods
of sweeping rain,
Across the Kansas prairie land, across Nebraska's
plain.

Two hundred wagons, rolling out to Oregon,
Curved around the campfire flame at halt when day is done,
Rest awhile beneath the stars, yoke again and lumber on,
Two hundred wagons, rolling with the sun.

Among the barren buttes they wind beneath the jealous
view

Of Blackfoot, Pawnee, Omaha, Arapahoe, and Sioux.
No savage threat may check their course, no river
deep and wide;

They swim the Platte, they ford the Snake, they cross
the Great Divide.

They march as once, from India's vales through Asia's
mountain door,

With shield and spear on Europe's plain, their fathers
marched before.

They march where leap the antelope and storm the
buffalo,

Still westward as their fathers marched ten thousand
years ago.

Two hundred wagons, rolling out to Oregon,

Creeping down the dark defile below the mountain crest,
Surging through the sprawling stream, lunging, plunging,
forging on,

Two hundred wagons, rolling toward the West.

Now toils the dusty caravan with swinging wagon-poles
Where Walla Walla pours along, where broad Columbia
rolls.

The long-haired trapper's face grows dark, and scowls
the painted brave;

Where now the beaver builds his dam the wheat and
rye shall wave.

The British trader shakes his head and weighs his
nation's loss,
For where those hardy settlers come, the Stars and
Stripes will toss.
Then block the wheels, unyoke the steers; the prize is
his who dares;
The cabins rise, the fields are sown, and Oregon is
theirs!
They will take, they will hold,
By the spade in the mold,
By the seed in the soil,
By the sweat and the toil,
By the plow in the loam,
By the School and the Home!

Two hundred wagons, rolling out to Oregon,
Two hundred wagons, ranging free and far,
Two hundred wagons, rumbling, grumbling, rolling on,
Two hundred wagons, following a Star!





Flying Cloud

by CHARLES G. MULLER

JABE THOMPkins pushed his way eagerly among the home-going crowds that filled the darkening New York City streets that warm May evening. As he reached his father's shop, he began waving the letter that was the cause of his excitement. For that letter—travel-stained, begrimed, delayed by Heaven only knows what mishaps—was from his uncles in California. Word from John and James Thompkins had been long awaited by the family which these two gold miners had left behind in New York City a year ago.

"They've got a good claim," said Jabe's father when he had hurriedly broken open the envelope and had skimmed through the closely written pages. "But

they're down to a few dollars. They haven't enough to buy the mining equipment and supplies they need to work their claim. Listen to this."

Ezra Thompkins slowly read part of the letter, which was dated January 5, 1851, from San Francisco:

What with one thing and another, we can't possibly hold out past September 5. We are bound to take up our claim by then. In the meantime we will get along somehow. With stevedores and laborers getting from \$20.00 to \$30.00 a day, we can probably make a living until we hear from you.

But even if that rate of pay sounds like a great deal of money, it actually is very little, because we have to pay from \$40.00 to \$60.00 a barrel for pork and beef and flour! And \$4.00 a pound for coffee and tea and sugar. Cowhide boots out here bring \$45.00 a pair, and even a pick or shovel costs us anywhere from \$5.00 to \$15.00—all because most people won't meddle much with supplies, with everybody in the gold fields making from \$100 to \$1000 a day washing out gold. Speculators in merchandise are reaping terrific profits.

The letter ended with a final appeal for help:

We're only two among thousands here that need money; so we can't get a cent of credit. That makes us entirely dependent on you for money to work our claim. Rush it at once, or we'll all lose a fortune!

Ezra Thompkins, finishing the letter, looked up at his tall son. The boy's eyes were shining, and he could hardly contain himself.

"Let me take the money out to them, Father," he said. "After I'd delivered it, I could go out into

the mining fields with Uncle Jim and Uncle Jack and help them. A thousand dollars a day! Whew!"

Jabe's father grunted.

"The thousand dollars a day would be fine. But you couldn't get there until too late. The clipper *N. B. Palmer* sailed two days ago, and she won't reach California until along about the end of August. There's no way for us to get freight overland at all. I guess we've had our chance for a fortune and lost it, Son."

Jabe's blue eyes continued to shine. His voice was vibrant. "But it *can't* be lost," he declared firmly. "There must be some way to get help out in time."

The merchant shook his head. "I'm afraid not. Around Cape Horn's the only route, and now it's too late. Besides"—he said the next words slowly—"I don't know as I could raise enough money to be of any use. I gave your uncles practically every cent of cash I could raise when they started out last year in the gold rush."

Jabe waited to hear no more. Slipping out of his father's shop into the street that was lighted just enough to enable him to make his way, he headed for the Astor House. Inside his head ideas were exploding like kernels of corn in a popper. And some one of the ideas, he told himself firmly, must be made to work.

In the lobby of the famous hotel Jabe sat quietly and listened to endless discussions and arguments that sea captains, merchants, and shipbuilders carried on all about him. His ears took in everything—wispis of clipper-ship news, bits of gossip of California, and opinions of sea-going men who knew what



they were talking about when they talked of sailing-ship speeds. All this Jabe absorbed. And then his idea flashed out bright and clear.

A half-hour later he was pouring out to his father the flood of information he had accumulated that evening at the Astor House.

"We can get help out to Uncle Jim!" he cried exultantly. "I've found a way!"

Ezra Thompson, impressed in spite of himself, listened to his son's eager words.

"There's a new clipper coming down from South Boston to sail for California in about ten days. She's called the *Flying Cloud*, and Donald McKay, the famous shipbuilder, turned her out. Captain Josiah Perkins Creesy is her skipper, and I guess you know what that means to any boat."

"Well," asked Jabe's father, "what's that to us?"

"Why, they're laying bets down at the Astor House

that this new ship will make San Francisco in less than ninety-seven days! She will be in California before September 5!"

"Less than ninety-seven days—nonsense!" Ezra Thompkins was emphatic. "Ninety-seven days is the fastest time any ship ever sailed to California. The papers were full of it last year when the *Sea Witch* made that record passage. That won't happen again, let me tell you."

"But it will, Father." Jabe's voice carried the conviction that he himself felt. "This new ship's the finest that's ever sailed. She's 225 feet long, Father, with the sweetest-looking bow that ever cut through water. They say her mainmast is eighty-eight feet high, and that she carries three standing skysail yards. Some of the captains at the Astor House say she's sure to break the record."

Jabe's father was shaking his head slowly, but the young man rushed on.

"Don't you see, Father, that here's our chance to help Uncle Jim get to work on his claim? The *Flying Cloud* sails on May 31. That will give her ninety-seven days to get to San Francisco by September 5. She *can* make it, and I know she will."

The continued shaking of the older man's head finally brought his son's words to a stop.

"Even if you could get to California in time," Ezra Thompkins was saying, "it wouldn't do any good, Son. Because . . . because, I haven't enough money to stake your uncles."

Jabe's fist banged down on his father's desk.

"Then we'll ship them supplies instead of money!"

The next instant the youth's words again were tumbling out, one on top of the other. "You can get all

the goods they need in New York, and on credit. Prices are low here and——”

“But freight is between \$40.00 and \$50.00 a ton, Son. That’s an outrageous price to pay.”

Jabe refused to be interrupted.

“But the prices we can sell the goods for in California will be so high that we’ll make a great deal of money—on top of sending to Uncle Jim everything he needs to fit him out for the gold fields. Don’t you see?”

Ezra Thompkins did see. He also felt some of the enthusiasm that his son was feeling. Finally he nodded his head. “It’s worth a gamble, Son. I’ll see what can be done.”

The next two weeks were among the most hectic of Jabe Thompkins’ life. His father had used his credit as a merchant to obtain the supplies which would grubstake the two anxiously waiting brothers; he had also dealt with the shipping offices for transportation of the goods and had had a talk with Captain Creesy about passage for Jabe.

“I’ll see that the young man keeps busy,” Josiah Creesy had said through his pointed beard. Ezra Thompkins had just put up to him Jabe’s plan for working part of his way to the Golden Gate. Around the famous skipper’s eyes was a maze of wrinkles that helped make up a salty smile. “And before the run’s over, I’ll make a sailor of him. At his age, I was well on my way to command, Mr. Thompkins, and I know how smart youngsters that like salt water are. Send him right along.”

Every day brought added excitement to Jabe, who was living in a constant state of hope and doubt. May 31 arrived, but the *Flying Cloud* was not yet ready

to sail. Every hour spent in New York meant that much less time to reach the Golden Gate, where fortune for his uncles and his father and himself waited if only he could get to it in time, and Jabe's father had lost hope again.

"We've lost our gamble already, Son," he said sadly. "Even if you sailed today, you'd only just make it in time. September 5 is only ninety-seven days away. And here you still are, with sailing date set now for June 3."

Jabe's heart, too, was in his shoes. But he tried to cheer his father with a confidence which he did not feel too strongly. "Then we'll get to California in ninety-four days, Father. I told Captain Creesy that I had to get there in that time," the youth explained. "And he offered to bet me a share in Uncle Jim's claim that we'd anchor in San Francisco Bay before September 4."

On June 3 Captain Creesy dropped the *Flying Cloud* down the East River to anchor off Battery Park for a few hours and take on the crew. The wait for this transfer of men was hard on Jabe, whose anxiety to get started was greater with each passing second. To make time speed, he watched the crowds on shore who were waiting for the chanteyman to set the air ringing with his sea songs, which were part of getting any big ship under way.

"In eighteen hundred and forty-six,
I found myself in a terrible fix,
A-working on the railway, the railway.
Oh, poor Paddy works on the railway."

The chanteyman had started his song. The voyage for California was begun. The *Flying Cloud* was bound out of New York harbor—three days behind the 97-day-

record schedule needed to bring Jabe to his uncles in time to make the family's fortune.

"'Vast heaving!'"

At the mate's bellow, the creaking of windlass and the chanteyman's song came to an abrupt stop.

"Anchor's apeak, sir," the mate reported to Captain Creesy, whose critical eye was taking in everything on deck and aloft of the *Flying Cloud*.

"Very good. Loose sails fore and aft," the captain ordered.

Amid shouts from below and scrambling above, through rigging and over yardarms, Jabe Thompkins remained outwardly calm. But inside him, his heart thumped, and his hands ached to take hold and pull or haul alongside the clipper's crew. Instead, as the skipper had told him, he stood by, drinking in every bit of the action that went on around him.

"Sheet home the topsails!"

"Aye, aye, sir."

"Bosun, look out for those clew lines at the main."

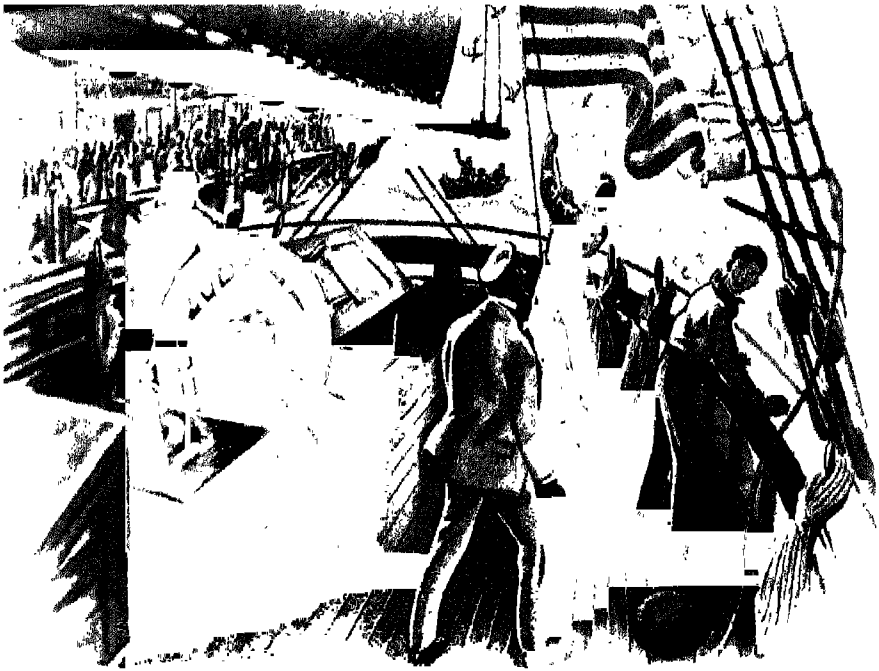
"Away, way, way, har,

We'll kill Paddy Doyle for his boots,"

sang the crew as they walked away with the three top-sail halyards.

Jabe watched canvas being set fore and aft. He saw topsails, topgallantsails, royals, and skysails stretched flat as boards, inner and outer jibs run up, and sheets hauled to windward. Main and afteryards were braced sharp to the wind. Foretopsail was laid to the mast. Then the anchor came up to the rail and the clipper paid off, getting under way.

Jabe Thompkins watched the longshoremen rush overside to their small boats, and he heard cheers from



the crowd at Battery Park. The ensign dipped. And the *Flying Cloud* started down New York Harbor for Cape Horn and San Francisco.

Jabe's heart, that had been beating so fast, stopped almost dead—for he finally was off on the greatest race of his life.

As Jabe stood by the rail, his eyes watching the water that swirled along the great ship's sides, he was despondent. But he was suddenly shaken out of his sorrowful reverie by the smack of a friendly hand on his back.

"Cheer up, my friend," a deep voice said. "Cheer up! Didn't I tell you we'd pass the Golden Gate in time to make us all rich?"

The youth, dressed in blue dungarees, nodded and tried to force a smile.

"Well, I meant it," Captain Creesy roared. "With the help of Heaven and fair winds, we'll do it—and with your help as well, my friend."

The Captain's voice was gruffer than Jabe ever had heard it. "Report at once to the bosun and learn how real sailors sail on a real ship."

Captain Joe Creesy was smiling as he turned away from Jabe to the mate. "It'll keep his mind off his troubles to be busy," the skipper said, and chuckled.

Past Sandy Hook, shining in the sunlight, and into the broad Atlantic Ocean the *Flying Cloud* drove—and continued to drive. But three days out from New York she tore out her main and mizzen topgallantmasts. Then she lost her maintopsail yard.

As the captain had predicted, Jabe had little chance to think of his race against time. He was too occupied helping the boatswain make ready new spars and rigging. He bustled around, not always in the way, as the crew laboriously set up the new masts next day. And the following day, when a fresh maintopsail yard was sent up, he finally realized that for forty-eight hours he had been thinking of nothing but the problem of replacing the clipper's damaged gear.

"Ye'll be a sailor by the time we round the Horn," admitted the boatswain, a sturdy Swede.

Jabe laughed. "You mean we'll be rerigging all the way around?"

The boatswain nodded. "Most of the way, anyhow."

For days it seemed as if the boatswain's prophecy were to be correct. And Jabe, in almost no time, was splicing lines and repairing gear with the ease of a practiced able-bodied seaman.

With each new job that appeared, his confidence in

the *Flying Cloud's* power and speed increased. For he learned how strongly Donald McKay had built this great clipper. He came to learn how fine a seaman was Captain Creesy, who commanded her. And he discovered from daily contact with the crew what marvels of seamanship these sailors could accomplish to keep the vessel driving with all her might.

Turning to with the crew to wash down decks or to help the boatswain rig the head pump, he worked while breezes purred softly through the lofty rigging. And when these breezes freshened, he was among the first to respond to the officer's orders to sway up and make taut the halyards and braces and sheets that held the bellying white sails.

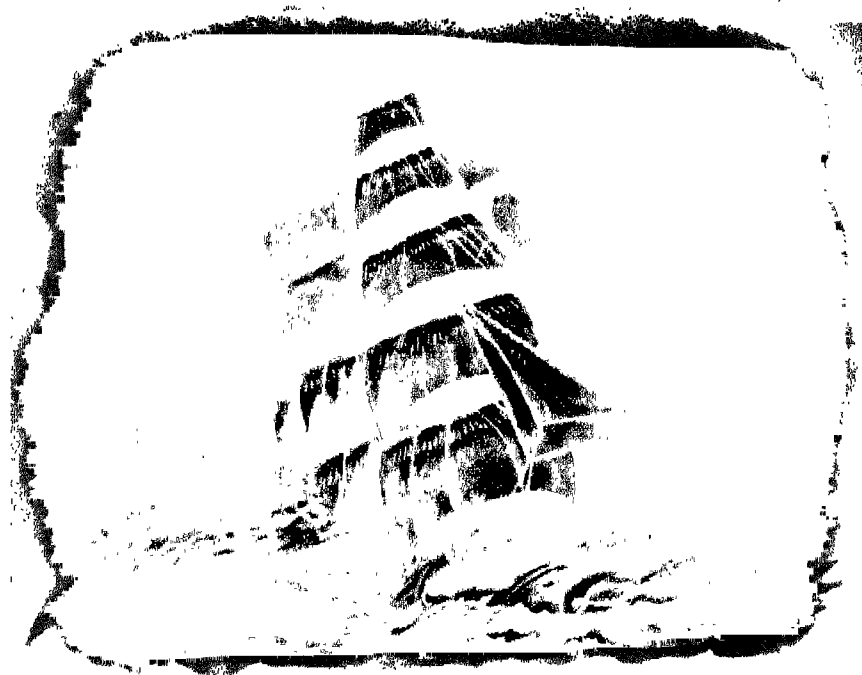
Down past the equator the *Flying Cloud* sped, and Jabe's pessimism gave way to the hope that originally had filled him.

"We're making knots," Captain Creesy confided one morning after he had taken his sights and the log had been hove. "We've been averaging nine and a half knots for a week."

"Then we will make California in time?" said Jabe, his voice showing that his hope was framed as a question and not as a statement of fact.

Captain Joe Creesy waved his hand enigmatically. "I said we would."

But next day, July 11, as the clipper scudded under double-reefed topsails through South Atlantic seas that threw spray over the *Flying Cloud's* deck and drenched everything in their path, the skipper's assurance meant nothing to Jabe. In the thunder and lightning that broke from darkened skies, the clipper's fore and maintopmast staysails split. And shortly after noon, when the captain learned that



the mainmast also had been sprung, he sent down royal and topgallant yards to relieve the strain. Then, two days later, the *Flying Cloud* carried away her maintopsail tye and the band around her mainmast.

Still the gallant ship drove on toward the Horn, while everyone aboard, including men released from the brig, worked frantically to repair the damage and to set all sail once more. No one worked harder than Jabe. Every moment, it seemed to him, counted now. And when, on July 23, the *Flying Cloud* passed Cape Horn, five miles south of the snow-covered coast, Jabe's heart lifted again. For even he could see, as the corner was turned, that rounding the Cape in fifty days augured well for a fast run, once the speedy clipper headed north and got full advantage of the Pacific's southerly winds behind her.

Jabe's heart rose even higher during the following week, for when the *Flying Cloud* finally did point north, she headed for the Golden Gate, with fine weather and with the finest of southeast breezes. All sail set, she fairly skimmed over the water.

Then squalls set in, and once more Jabe's heart sank. Lower and topgallant studding sails were taken off. High seas began to run. Water swept over the ship. So his amazement was great when Captain Creesy announced the run of July 31.

"Just 374 miles by observation!" the skipper shouted, showing a pride unusual for him. "Fifteen and a half knots average. And during some of these squalls we did better than eighteen!"

What Jabe heard on deck that day gave him a real appreciation of the *Flying Cloud's* fast heels. For 374 miles in twenty-four hours was the greatest mileage that ever had been piled up on any ocean.

"They'll never beat that!" declared Tom Johnson, the cook, his face wreathed in smiles as he filled the mess kit for his crew.

"What does a pot-walloper like you know about it?" demanded a sailor.

"I knows nobody ain't never goin' to sail no faster," grinned the cook.

For twenty-six consecutive days the *Flying Cloud* raced north as if carried by Jabe's prayers for speed, and for twenty-six days the youth's heart raced with her. Nearly six thousand miles she ran off with the precision of clockwork, and for four days in a row the gallant clipper scudded over the Pacific's swells at thirteen and a half knots. Three hundred and fourteen miles she averaged from noon to noon on each of those four days.

Jabe could hardly contain himself.

"We'll reach the Gate in less than ninety-seven days!" he said to Captain Creesy, as an August sun began to set in the west and the beautiful clipper, under the mighty spread of all her tremendous canvas, slipped like a greyhound of the sea through smooth waters. "Do you think . . . do you think we'll get there in time?" he finished, suddenly unsure again.

The captain, running a salt-stained hand through his pointed beard, laughed. "Didn't I say we would, before we started from home?" he replied laconically with the Down East Yankee's typical question in answer to a question.

Such smooth sailing was not to last forever. On August 29, eighty-seven days out, the *Flying Cloud* lost her foretopgallant mast. Weather was squally, and the wind was strong. Jabe Thompkins' heart again sank to its lowest point. But there was nothing for him to do except plunge into the strenuous task of setting a new spar. He threw himself heart and soul into the job. They must get the ship to San Francisco, and every second counted, he told himself.

He was so intent on getting the new spar in place that he scarcely knew what he was doing. Without a thought for the danger, he swarmed up the rigging with the sailors. He tugged and hauled furiously, still thinking only of how the broken mast was delaying them and how Uncle Jim and Uncle Jack and his father would lose everything if the *Flying Cloud* didn't get to port by the fifth. He hardly knew where he was. All he did seem to know was that he'd give the shirt off his back to get that spar in place. And then suddenly he heard a stern voice ordering him down from the rigging.

Captain Creesy used to tell the story for many years afterward:

"There I was, with my back turned for only half a minute, and what did I find but Jabe sixty feet and more above decks like a regular salty seaman. The same youngster, mind you, that hadn't been on a big ship before we left home. 'Thompkins, come down out of there!' I yelled. And what do you think he answered back, the crazy young landlubber?"

Captain Creesy always pulled at his beard at this point in the story.

"Well, he yelled back as calm as could be that he was busy as thunder getting the ship fixed so that she'd make the Gate by the fifth! Said he wouldn't have nerve enough even to *look* down until the job was done, much less *climb* down."

Captain Creesy always finished his tale the same way, too.

"So I just said nothing. But, you know, I thought he'd jump off the ship without his pants when I routed him out next morning and showed him the Farallon Islands bearing northeast one-half east.

"That means we'll drop anchor in San Francisco Harbor before noon,' I told him.

"Then we've made it in time!' he shouted.

"In time!' I yelled back at him. 'In time! Why, Son, today's only August 31. We've made the passage in eighty-nine days—eight whole days less than the record! And it'll be many a long month before you bring any more goods around the Horn any faster. You can lay to that, and tell 'em all at the Astor House that I said so.'"

Captain Creesy was right. The *Flying Cloud's* record has never been beaten by any sailing ship.

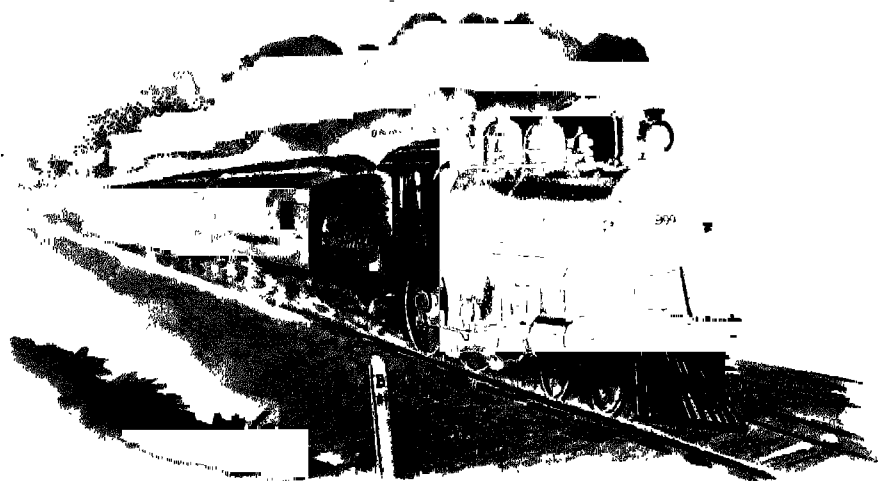


I Hear America Singing

by WALT WHITMAN

I HEAR America singing, the varied carols I hear:
Those of mechanics—each one singing his, as it
should be, blithe and strong;
The carpenter singing his as he measures his plank
or beam;
The mason singing his as he makes ready for work, or
leaves off work;
The boatman singing what belongs to him in his boat,
the deck hand singing on the steamboat deck;
The shoemaker singing as he sits on his bench; the
hatter singing as he stands;
The woodcutter's song, the plowboy's on his way in
the morning or at noon intermission or at sundown;
The delicious singing of the mother, or of the young
wife at work, or of the girl sewing or washing;
Each singing what belongs to him or her and to none
else,
The day what belongs to the day—at night the party
of young fellows, robust, friendly,
Singing, with open mouths, their strong melodious songs.





Engine 999

by MARGARET NORRIS

MILEPOSTS flying by like a picket fence—the roar of steel pressed against steel—screaming whistles—engine noises—the scraping of coal against shovel. Charlie Hogan at the throttle, Ike O'Dell at the firebox. This was Engine 999 on the run that made her world-famous.

On May 10, 1893, carrying the Empire State Express from Syracuse to Buffalo, she set the first one-hundred-mile-an-hour record for speed—112½ miles per hour. That record held for twelve years and has seldom been beaten, even in a generation with which speed is a mania.

Charlie Hogan himself, the man who drove her, told me the story of that run. I found him in his office in the handsome Buffalo station—a smallish man with a mop of white hair, a kindly face, and big bone-rimmed spectacles.

Although he was then eighty-one years old, his step was firm, his eye bright, his voice clear, and he was still doing active work. He was manager of the department of shop labor, arbitrator in all disputes that arose among hundreds of shop employees—a real job and a difficult one. Mr. Hogan was modest and reluctant to talk of himself. He was never a man for words—but what he could do with an engine!

And why not! He drove one for twenty-five years, the crack engineer of his day, a day of railroad pioneering when hazards were greater than now. With primitive equipment and inadequate signals, wrecks were no uncommon thing. But Charlie Hogan's engine never even hit a cow.

"Few people who ride behind appreciate the responsibilities of the engineer," he said in his quiet, thoughtful way. "Even today, when engines are run largely by pushing buttons, and a perfected signal system makes the run almost foolproof, the engineer's responsibility remains. He must be on his guard every second. The safety of his passengers depends on his judgment and skill."

Mr. Hogan was a railroad man all his life. At fourteen he was water boy on a section of road in western New York of which his father was foreman. This was in 1864. He soon became extra switch tender, then brakeman, then fireman, with alternate work in the shops as machinist's helper. In 1867 he shipped to Nebraska for a job on the Union Pacific, then in the process of construction. At first he worked as repairman on the tracks, but promotions came quickly in those days. Soon the young man was given an engine of his own between Rawlins and Green River, Wyoming.

"In those days the West was really wild and

woolly," he said. "It was our first transcontinental line. To the new towns along the railroad flocked gamblers, thieves, the offscourings of the earth. The road stretched through unbroken prairies and hills from the Missouri River to the Pacific, with miles and miles between stations.

"I remember the very day it was completed. On May 10, 1869, the Central Pacific from San Francisco and the Union Pacific from Omaha merged at a point called Promontory, Utah—a single road 2000 miles long. There was a big ceremony, and the contractor drove in a golden spike. Yes, it was really solid gold. Perhaps he drove it in and dug it right up again to prevent some thief from getting it.

"But worse than the thieves was the weather. It wasn't unusual for a train to be stuck in the snow two days. I remember once it took a week to make the seventy-mile run between Rawlins and Bitter Creek. We didn't have rotary snowplows then, and our little engines were just about strong enough to pull a setting hen off her nest. Our old-fashioned snowplow didn't even make an impression on the snowbanks, and I frequently had to dig the train out by hand.

"Equipment has been developed to a wonderful extent since then. When I started driving, everything was hand power. It was before the introduction of the air brake. Trainmen applied the brake by twisting it, and often two men were needed. It took a thousand feet to stop a train going twenty-five miles an hour. This was bad enough in the days of the horse and buggy, which didn't try to beat the train to the crossing as automobiles do now.

"It was before the introduction of the automatic coupler. Cars were coupled together by what was

called the link-and-pin system. Nothing requires more careful attention. Many men were injured and killed, and a lot more got their hands pinched."

In 1871 young Charlie Hogan married and returned East, this time to work for the New York Central. During the seventies and eighties he was building up a reputation as a skilled and dependable engine driver, so much so that he was selected for the special train on which Commodore Vanderbilt traveled, winning his confidence and esteem. This is one of the reasons why the young engineer was chosen as representative of the first committee of employees ever to call on the great railroad president. He not only got what he went after, but won the Commodore's personal thanks for telling him about labor conditions that he didn't know existed.

"Both Commodore Vanderbilt and his son William, who succeeded him, were stern, fine men," said Charlie. "They laid the foundations for the type of railroad men



who have followed. Among the officials whom I came to know very well were Walter Webb, vice-president and general manager; William Buchanan, superintendent of motive power and George H. Daniels, general passenger agent. It was these three men who were chiefly responsible for Engine 999, perhaps the most famous iron horse ever built.

"Back in the nineties," he continued, "there was a mania for speed. Not as bad as at present, of course, but every railroad was anxious to run a faster train than its rivals.

"Previous to October 1891, the fastest long-distance train in this country was scheduled for forty miles an hour. In England was one that made fifty-one miles an hour. The management of the New York Central felt that with its splendid roadbed and fine facilities for protection, it might install the fastest train in the world. The result was the Empire State Express, which on October 26, 1891, made the run from New York City to Buffalo at 52½ miles per hour, thus beating the English record by a small margin. But this didn't satisfy them long.

"Here was the World's Fair coming along in 1893, with every country under the sun planning to exhibit an engine. If it were possible to build one that would make 100 miles an hour—well, she would merit a place of honor. It was a challenge to Mr. Buchanan, one of the finest master mechanics ever born, and he and Mr. Webb and Mr. Daniels got their heads together. The result was No. 999, built in the West Albany shops. I helped build her. At the time I was the superintendent of construction in those shops.

"It was no quick job. Nowadays, engine-building is done by machinery. Then it was done by hand with

chisel and hammer, and Mr. Buchanan insisted that her frame should be hand-polished, too. There was no buffing or emery process then. But when we finished her in the late summer of 1892, by George! she was a beauty! Her frame gleamed like a black satin coat.

"She was equipped with high-drivers for speed. She was the first engine built to have brakes applied to her front trucks, and the first to have the newly patented Buchanan firebox. Everything about her was designed for speed, with no pains spared for beauty. Bands, pipes, and trimmings were highly polished, her brass shone like a mirror, her cab was beautifully painted, and across the tender in gold-leaf letters two and one-half feet high was written 'Empire State Express.'

"Of course we gave her several trial trips before her final test for speed. I'll never forget that first trip from Albany to Schenectady. We were clipping along at about 95 miles per hour when the spring hanger over her drivers broke. And say—if you ever saw fireworks! But soon we had her fixed up again, and early in the spring of '93 she replaced the good engine 870 on the Empire State Express."

But Charlie Hogan wasn't satisfied merely to try out the engine before making the final test of speed. There were passengers to be considered. To get them safely to their destination was more important than to clip off a few seconds. He requested that every inch of roadbed should be inspected and put in the best condition—ties, rails, and ballast in perfect shape.

When this request reached Mr. Buchanan, he turned proudly to the other officials and said, "Now you see why I want Charlie Hogan on this engine. He'll think first of his train and then of speed."

At last the big day, May 10, arrived. The Empire State Express, loaded with passengers, left New York. Four cars was her limit in those days: baggage car, coach, Pullman, and club car.

The secret had been carefully kept. Only a few officials knew that a record was to be tried for. If they had known it, some of the big businessmen might have found an excuse to leave the train at Albany. A few newspaper men were on board, having been tipped off that something unusual might happen before the end of the run. In every car sat an official timekeeper, stop watch in hand. In the car directly behind the engine a mechanical speed gauge was installed.

On a siding in Syracuse stood Engine 999, steam up, snorting to go. Mr. Buchanan, Charlie, and Fireman Ike O'Dell were making a final inspection of their throbbing monster. The Empire State Express pulled into the yards. No. 870 was dropped, and 999 picked up the train.

"Take the bridle off, Charlie," said Mr. Buchanan. "Well, good luck, boys. So long!" And he took his place in the Pullman beside Mr. Webb and Mr. Daniels.

The train started as smoothly as a perambulator. The good engineer never jerks. She proceeded at scheduled pace to Rochester, where a brief stop was made; then she reached the start of that straight stretch of thirty-six miles, between Batavia and Buffalo, chosen for the supreme burst of speed.

Ike was weaving back and forth between the fire and the tender with one shovelful of coal after another. Stoking meant stoking in those days. Today you push a button, and a machine does the rest.

"Counting your mileposts, Charlie?" he called out above the roar.

"We're making eighty now."

"Wow!" yelled Ike. "I bet those passengers are beginning to sit up."

"Ninety, Ike, and better."

"I'll bet those dudes think we're crazy."

"Maybe we are, Ike, but here's some more steam. A hundred miles an hour!"

"Shiver my timbers!" gasped Ike at the boiler.

"Who said this wagon wouldn't travel?"

"No one will ever say that now, Ike."

There was a long stretch when neither man spoke.

Then: "Buffalo, Ike. Here we are."

The switch engines on the sidings whistled a throaty acclaim to those two sturdy men in the cab. Then, pell-mell from the Pullman, came the big officials to congratulate them both, to sweep Charlie almost off his feet and tell him that for one mile he had gone at the record-shattering rate of 112½ miles per hour.

"Well," was his laconic answer, "I could have told you one of Mr. Buchanan's engines would do that, no matter who drove her."

News of the wonderful achievement of No. 999 was telegraphed to all parts of the world. A few weeks later they took her to Chicago for exhibition at the World's Fair, where people from all over the civilized world came to see her and admire her.

Charlie Hogan was taken off his engine in July 1893 and promoted to traveling engineer, to teach other men how to do it. In 1900 he became master mechanic in Buffalo; in 1904, division superintendent of motive power; in 1910, assistant superintendent of motive power; and in 1920 he was promoted to the office of manager of shop labor, where he carried on until his retirement.

The Makers of Speed

by CARL SANDBURG

THE silent litany of the workmen goes on—
Speed, speed, we are the makers of speed.

We make the flying, crying motors,
Clutches, brakes, and axles,
Gears, ignitions, accelerators,
Spokes and springs and shock absorbers.
The silent litany of the workmen goes on—
Speed, speed, we are the makers of speed;
Axles, clutches, levers, shovels;
We make the signals and lay the way—
Speed, speed.

The trees come down to our tools.
We carve the wood to the wanted shape.
The whining propeller's song in the sky,
The steady drone of the overland truck
Comes from our hands; us, the makers of speed.

Speed; the turbines crossing the Big Pond,
Every nut and bolt, every bar and screw,
Every fitted and whirling shaft,
They came from us, the makers,
Us, who know how,
Us, the high designers and the automatic feeders,
Us, with heads,
Us, with hands,
Us, on the long haul, the short flight;
We are the makers; lay the blame on us—
The makers of speed.

Road to Alaska

by DOUGLAS COE

IN THE coldest, blackest hours of March 9, 1942, while the thermometer stood at 30 degrees below zero, the village of Dawson Creek, British Columbia, was roused from its sleep at half-past one in the morning by an event so important that soon the whole world would know about it.

At first there was only the deep mournful whistle of a locomotive sounding across the white-piled fields. Dawson Creek heard it and stirred a little in its sleep. This was not one of the town's scheduled three weekly trains. This was something special. A few of the hardier residents crawled out of bed, wrapped themselves in heavy robes and blankets, and went to stand at their windows.

Yes—they could see it now—the long bright finger of a headlight pointing toward the town from the south. Finally, there was a squeal of brakes, a hissing and a chugging which meant that a long, heavy train was slowing down. A moment later the great black locomotive's front wheels sighed to a stop at the bumper that rose at the end of the track—the *real* end of the track, the northernmost tip of the rail line running up into Canada.

For a single brief instant the silence closed down around Dawson Creek again. And then it was torn apart by a mingled confusion of sounds. Car doors clanged and a loud voice shouted, "Fall out!"

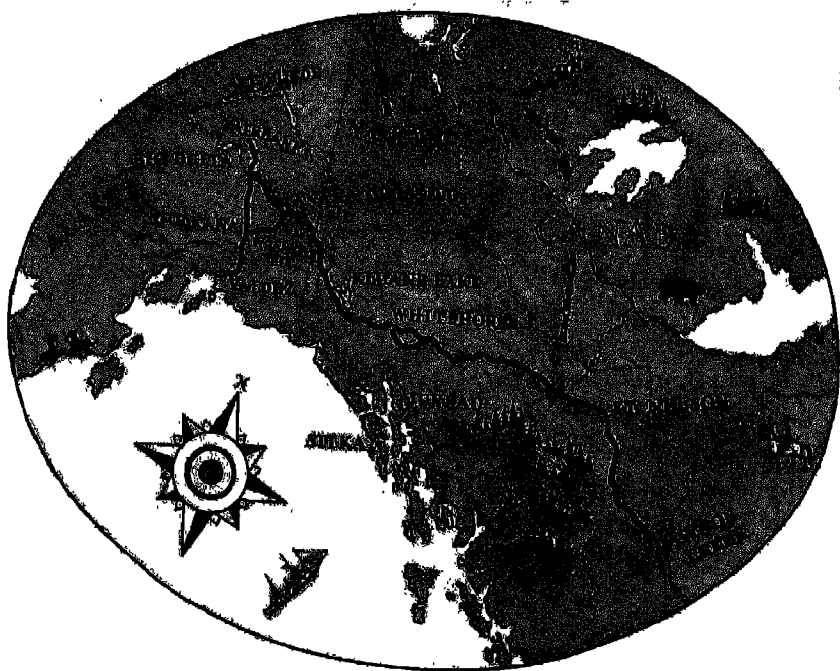
The United States Army had arrived to help in the work of building the Alaskan Highway.

And it didn't waste any time. Hobnailed boots clumped against the frozen ground as the job of unloading supplies began. This was a Quartermaster Unit, and it had plenty of work to do. There were boxcars and flatcars to be emptied, tents to be put up, platforms and shelters to be thrown together to protect the tons of goods the train had brought.

These men weren't the roadbuilders, but their job was as important as any that would be done on the highway itself. They were to be responsible for receiving all the material that was going to be shipped in for the tremendous amount of work ahead. They were going to erect the warehouses, the repair shops, the quarters for offices and kitchens and hospitals. And they were going to see to it that equipment, food, and medical supplies were sorted out and sent ahead at the proper time to the engineers and construction men who would soon be hacking away at the forests and mountains that lay beyond.

They were a cog in the great wheel that had already started to turn. And the men at Dawson Creek weren't the only cog of that kind. Quartermaster Corps were also arriving at various points at the Alaskan coast.

This was all according to the plan the Army had worked out—a plan whereby the Road would be tackled simultaneously from different directions. One gang of men would work north out of Dawson Creek; others would start operations at Fort Nelson, at Whitehorse, and at Gulkana. They would move northward and southward all at once, struggling toward each other through the wilderness, building little stretches of road that would lengthen out toward each other until they met, until all the stretches were finally connected in a single highway—and the Road would be finished.



From Dawson Creek at one end to Fairbanks at the other, the Road would be 1600 miles long—more than half the distance across the United States from east to west. And the Army was to build that highway in spite of cold and snow, in spite of mountains, rivers, and the great glacial streams, in spite of the reputedly bottomless swamps.

The bitter wind that howled around the little tents in Dawson Creek that March morning seemed to be laughing. Did these frail human creatures think they could challenge the wilderness to battle—and win? Why, the North had never been beaten.

But the American Army had never been beaten either. And if this was going to be a fight to the death—well, let the fight begin.

Experts said it would take two or three years at best. The Army said there wasn't that much time; it

would have to be finished within a year. And in March 1942 the trucks and shovels and tractors began to move northward. And the thousands of soldiers and workers went along.

Every mile of the Road presented its own problems. When the route of Alcan—the nickname adopted for the Road by joining the first syllables of the words Alaska and Canada—was first announced by the Army, its engineers began to hear tales of unclimbable mountains, unbridgeable rivers, and many miles of impassable muskeg bogs. And the worst of these was the last—*muskeg*.

But the Army engineers were not dismayed. They knew better than any other roadbuilders just how to beat swampy ground. They had made a special study of the Northland bogs. They had discovered that muskeg, despite its dangerous reputation, is not so very different from most swamps. It is an accumulation of leaves and other vegetable matter, piling up year after year as forest debris falls to the ground, but never quite decaying into soil because it is frozen so much of the time. It is true that in the North this piling-up process has been going on for centuries, uninterrupted by any activity of man, and that in some places the resulting mass is fifty to sixty feet deep. It is true also that muskeg is largely water—or ice—and that, in its unfrozen state, it cannot support any weight at all.

But the Army wasn't discouraged. If a detour of the swamp was impossible, the lead bulldozers of a crew coming upon a patch of muskeg would be put to work immediately digging down with their plows to test its depth. If there was only a foot or two of bog on top of solid ground, the huge machines would root

their way through the muck, cutting a channel in it the width of the roadbed. Following close behind them came trucks loaded with gravel. When tons of that had been dumped into the wide shallow ditch, heavy tractors went back and forth over the new surface, packing it down tighter and tighter. Then more gravel was piled on and packed down until, finally, the result was a firm bed of crushed stone resting on an earth bottom.

Sometimes, however, a caterpillar tractor would almost bury itself in its search for the swamp's bottom. In that case, and if test-cuts on both sides of the charted route proved that the bog was no less deep near by, corduroy was the engineers' answer.

This system of roadbuilding results in a surface resembling the ridged cotton cloth of the same name. The early corduroy roads used in colonial America were probably built in exactly the same way that was



used on the Alcan Highway: trees were cut and trimmed, laid across the bog side by side, and covered over with gravel or earth. Then another layer of logs and earth was put down.

If the first traffic caused the roadway to sink down in the muck, this process was repeated again and again, as often as was necessary. Sometimes as many as fifteen layers of trees and earth were piled up, one on top of another. Sooner or later the corduroy stopped sinking—in even the deep bogs it finally touched bottom and held firm.

The Road grew longer mile by difficult mile. Over the mountains and through the muskeg, across streams on ferries or bridges of newly-cut logs, the Road was creeping onward. Sometimes the creep was slowed almost to a standstill.

There had been that ordeal in the Wrangell Mountains, for example, where the 97th Regiment had been able to construct exactly one mile of highway in ten days of backbreaking work. And there had been the patch of muskeg which had nearly beaten the 35th. Everybody in the outfit had been put to work felling and laying trees that time—the cooks, the clerks, the doctors, and the mechanics—and they had finally got through to solid ground again.

And there had been the White River ordeal. The White River is pretty far north—up near the border between Alaska and the Yukon Territory. One night a layer of ice formed over its whole surface. When morning came, the water running down from the mountains flowed *over* that hard crust; and that night the new water froze, too. The next morning more water came down, and that night there was a third layer of ice. Higher and higher the layers piled up, farther and

farther across the two-mile valley the choked stream spread. Soon it became apparent that the bridge over the White River would have to span more than two miles of treacherous ice.

Even the ponderous pile driver couldn't pound logs through that frozen water and through the frozen gravel beneath it. The men tried to blast the stream bed with dynamite. They poured on precious diesel fuel and set it afire. They tried high-pressure streams of water. They even clawed at the icebound surface with hand chisels and sledge hammers. But the results of their labors were scarcely visible—and with every day the really cold weather was getting closer and closer.

Finally the air compressors arrived on the job, and to the relief of every man in the unit, their rattling drills ripped through even this toughest of tough assignments. Now the piles could be set, and at last another bridge was ready for service.

In the meantime word came through that the contractors who were working up beyond Big Delta had finished the stretch of road from that small town south to Tanana Crossing. And on September 25 another gap



was closed. The 35th Regiment, moving northward out of Fort Nelson, met the 340th moving south from Whitehorse. And that meant that a road—some sort of a road, at least—was completed all the way from Whitehorse down to Dawson Creek.

On November 20, 1942, at Kluane Lake, Yukon Territory, 250 persons huddled together in the steely cold to watch Canadian and Alaskan officials cut the red, white, and blue ribbon that had been stretched across the Alaska Military Highway. A military band played, and a group of Royal Canadian Mounted Police made a splash of color against the gray-green landscape.

Gold scissors flashed in the light of the great bonfire near by. The wind picked up the ends of the



snipped ribbon and waved them for a moment over the heads of the little group. Then it let them settle to the ground.

The four soldiers—two sergeants and two privates—whose outstanding service on the Road had earned them the distinction of holding the ribbon, relaxed a little. They looked proud, but they also looked relieved. They had been standing at attention for an hour in 15-below-zero weather.

But now it was all over. The Road was open. The traffic could move, and so could they.

They stamped their feet and cheered as a big truck, which had come up from Dawson Creek in seventy-one hours, roared into life again and sped over the ends of the ribbon on its way northward.

The Army engineers had kept their promise. They had even bettered it. That first Quartermaster unit had arrived in Dawson Creek just eight months and eleven days before the ceremony at Kluane Lake.

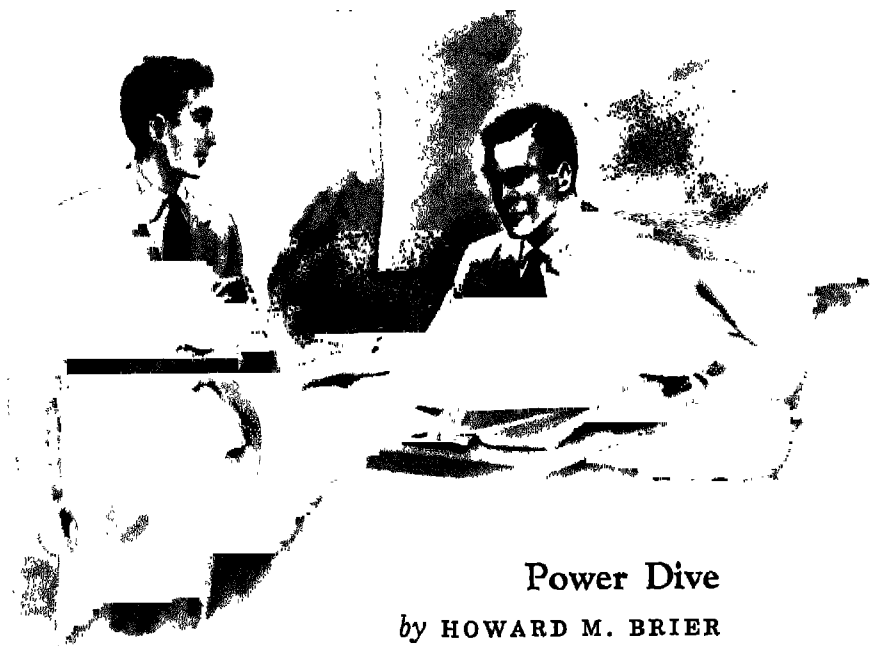
The experts who had said that the Road couldn't be built tried to forget how scathing they had been. The people who had laughed, now tried to pretend that they had not really thought the possibility of a highway to Alaska was ridiculous.

Of course, nobody claimed that the Road was a boulevard. There was still work to be done. And the Army knew perfectly well that some of its sturdiest bridges were likely to be washed out by the spring floods and would have to be replaced. But still it was a road. The trucks could get through.

And now the men who had built the road—or some of them—could go home. The story of their ingenuity, their endurance, and their courage will live on, a stirring chapter in the history of American builders.

Wonder Workers





Power Dive

by HOWARD M. BRIER

PORTER J. HAMLIN, president of the Starwing Airplane Company, looked up from the specification sheet he had been studying and scowled.

Across the desk from him stood Barry Martin, his freckled face covered with a grin and his wind-combed hair awry.

"Who let you in here?" Hamlin roared, pushing his chair back and getting to his feet. "I gave my secretary orders to keep you out. This is the fifth time——"

Barry refused to give ground.

"I know it, Mr. Hamlin," he said. His face sobered. "I waited until she went out for lunch. I had to see you."

"Well, if it's about a job, there isn't a chance. I'm not hiring anybody. Not even a grease monkey."

"But I'll do anything," Barry said. "I'll sweep out, run errands——"

"I thought you were a pilot."

"I am," Barry returned. "I can fly any kind of plane."

"But you washed out at Sand Point Field—couldn't make Pensacola."

"How...how did you know?" There was a quaver in Barry's voice, and disappointment showed in his eyes.

"Looked up your record," Hamlin snapped. "I might as well be frank with you, young man. There is no place for you with the Starwing organization. We must have experienced men around here—men who know their business. Now don't bother me again."

Barry turned toward the door. His knees felt weak. So Mr. Hamlin knew about Sand Point! That had been two years before, when he had dropped out of college to enter aviation.

Barry Martin had grown a lot older in those two years, but it did not show on his face. Just a boy, thought everyone who looked at him; still his appearance had not kept him from learning to fly airplanes. He had worked behind a soda fountain during those two years. Every penny he could spare had gone into a flying course at a commercial field.

"You're a natural," Todd Kelso, his instructor, had told him recently, "but people won't believe it. You look young and inexperienced. That might be why you washed out at Sand Point."

Kelso's words came back to Barry now, but he found little consolation in recalling his instructor's praise. What good was it to be a natural-born flier if Mr. Hamlin refused him a job with Starwing because of his youthful appearance?

Barry Martin stopped outside the administration building and leaned against the wall. His face was wistful as he looked over the grounds of the Starwing Airplane Company—the squat hangars, the well-kept landing field, the three silver ships that were on the line in front of the main hangar.

He walked away, sick at heart, discouraged. Though there were other companies building airplanes on the coast, Barry preferred to work for Mr. Hamlin. His engineers and designers were pioneering in the field of aviation. Starwing planes were more airworthy, faster than other ships, and Hamlin was always striving for the ultimate in aircraft—the perfect ship.

"Hello, Barry!" a voice hailed him. It was Hank Faris, chief engineer. "How'd you make out with the boss?"

Barry shook his head. "No luck, Hank. Hamlin wouldn't give me a tumble. He...he knows about Sand Point."

"Well, you can't keep that under your hat forever. Lots of good fliers wash out at government fields. You keep after him. You'll land, one of these days."

They walked toward the west wing of the assembly plant. At the door, Hank Faris stopped.

"Sorry I can't ask you in, Barry. You know how fussy Hamlin is about this particular plane."

"How's the new ship coming?" Barry asked.

"Fine. We're putting the finishing touches on it. Be off the line this afternoon. It's due for a test tomorrow morning."

"Who's the pilot?"

"Wish I knew. That's another one of Hamlin's secrets. All I know is that officials are scheduled to arrive early in the morning. If this ship comes

through the tests, Hamlin will walk off with one of the biggest contracts ever awarded on the West Coast."

"Hope he makes it," Barry said.

"If he doesn't make it with this crate, he'll never make it."

A guard locked the door after Hank Faris entered the factory.

Late afternoon found Barry heading toward the commercial field where he had learned to fly. It was always consoling to talk with Todd Kelso. Even when Todd was on the ground, he lived in the air. It was useless to talk to him about anything but flying.

Todd was not at the field, but his wife, Martha Kelso, was there. She acted as Todd's secretary.

"Good evening, Barry," she said as the boy entered the little office and slumped down in a chair. "Looking for Todd?"

Barry nodded.

"I'm sorry he isn't here. A man chartered one of the planes for a trip to Spokane. I don't expect him back until late."

"Mind if I rest a while?" Barry asked.

"Not at all."

Barry did not know that he fell asleep nor that Mrs. Kelso fixed a pillow for his head. The telephone finally roused him. He opened his eyes, startled. It was dark outside. A light was burning in Kelso's private office. The clock said nine-thirty.

"What's that? What's that?" Mrs. Kelso was answering the telephone. There was a frantic note in her voice. "Is he all right? Yes. Yes. I'll come."

She put the receiver on the hook, and it trembled there. Barry had moved to the door. Mrs. Kelso was biting her lip when she turned to him.

"It's about time, Todd," Hank Faris said. Then he stopped short and blinked.

The aviator held out the contract sheets. Recognition registered on Faris' face.

"Barry!" he said. "You can't pull a trick like this."

Barry Martin grinned. "Read provision seven of the contract," he said, and moved off toward the plane.

Hank Faris scratched his head as he glanced at the contract. Provision seven said:

Such notice must be given at least five hours before the time of take-off, unless the party of the second part is physically unable to make said flight, and can provide a substitute with proper flying credentials.

"Hey, Barry! Wait a minute!" Faris shouted, but Barry was in the cockpit, gunning the motor. The noise drowned the engineer's voice.

The new Starwing hit the runway with tail in the air. Barry inched back on the stick. The engine responded to the throttle. The motor roared. The acceleration threw him against the seat.

He was in the air, climbing like a rocket. Never had Barry known such power under his command. The ship was smooth. A touch of the stick, and it banked, dived, or climbed. With silver wings spread for flight, it snorted up into the blue morning sky—a thunder-nosed comet.

The altimeter read two thousand feet . . . three thousand . . . four thousand. The wind whipped around the ship, needled Barry's face. He grinned. This ship could climb. Up . . . up . . . eight thousand feet . . . ten thousand feet! He leveled off.

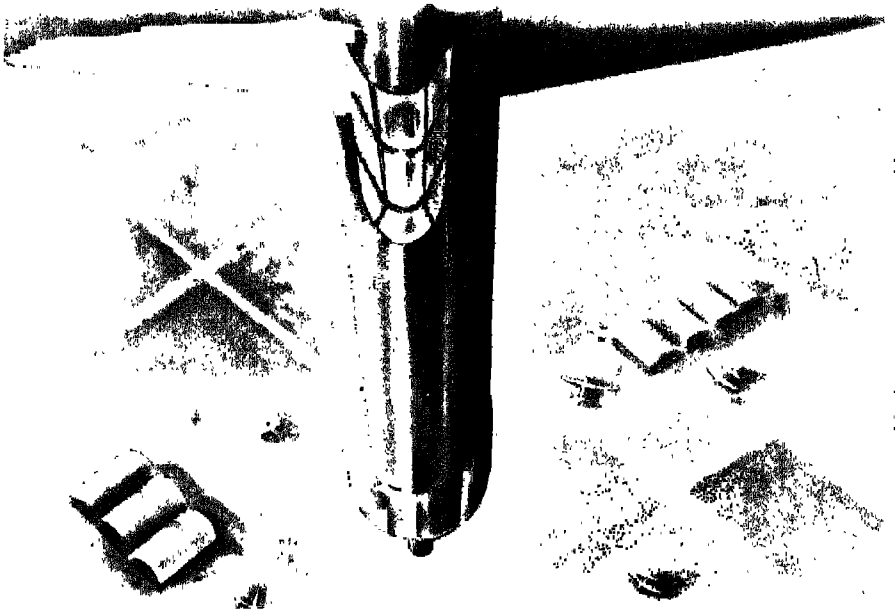
He circled for a time to get the feel of the ship. Then he climbed to thirteen thousand feet. The con-

tract said ten loops. Nothing to that. Old stuff! He went into the first one. Up and over. Nine to go.

Up and over. Up and over. Seven . . . eight . . . nine . . . ten! He glanced at the altimeter. It still read thirteen thousand. He could loop this plane all day without losing altitude. What a ship! Hamlin knew what he was doing when he built it. They wanted barrel rolls. Barry gave them barrel rolls—more than enough to satisfy them. He topped it off with a falling leaf.

Then he pulled back on the stick. Up into the sky he went. What a climb! Twelve thousand . . . thirteen thousand . . . fourteen!

He tightened his belt and adjusted his goggles. The routine said six dives at terminal velocity. He smiled dryly and kicked the plane over. Silently he prayed that the wings would stay on. Like a plummet he fell. The brown earth was coming up.



A silver streak was coming down. Seconds were minutes in that mad rush. He was dropping at the rate of four hundred fifty miles an hour. The motor whined. The wind screamed. Now was the time to pull out.

Barry yanked back on the stick. The instruments were blurred dials in front of him. The plane snapped out of it and roared back into the sky like a roller coaster.

The shock of the sudden change in direction jammed Barry's head down on his shoulders. Pain stabbed along his spine. His vertebrae cracked. He tried to read the instruments. The blood was drained from his head, leaving him temporarily blind. But the ship was climbing. It was not until it was well on the way up that Barry recovered complete consciousness. As his sight returned, his eyes groped for the accelerometer. It registered seven G's.

Slowly the pain left him. His head was clear, but his body felt numb. He watched the altimeter creep around the dial. Fourteen thousand . . . fifteen thousand feet! A man was a fool to go in for this. His hand trembled slightly on the stick. This time his lips were hard fine lines. The grin had vanished.

"Eight G's," he muttered to himself. "Got to make eight G's."

The ship nosed over, and Barry was in another dive—a squealing, thundering, snarling dive. He pulled out of it at six thousand feet. When he had altitude again, when the vision had returned to his bloodshot eyes, he looked at the accelerometer. Seven and one-half G's.

On the third dive Barry pulled out too soon. Grim determination gripped at his heart. Todd Kelso would

pull that needle around till it cracked. He could not let Todd down. The shock was tearing at his insides. It was a good thing that he had strapped himself up with plenty of adhesive tape. His head was a throbbing lump. Every bone in his body ached, but he must make it. He had to make it.

Up into the sky again. Then down . . . down . . . down! Like a falling star! Like a bomb released!

The instrument panel seemed to be dancing before his eyes—a crazy pattern of needles and dials. What did they stand for? They showed air speed; revolutions per minute; altitude; velocity; acceleration—eight G's on that dial represented a pull as great as eight times gravity. Barry rubbed the back of his hand across his eyes to clear the fog away. The accelerometer read a shade over eight G's. He had made it—made it on the fourth dive! Now he had two chances left to make the required second eight-G pull-out. The fifth dive gave him only a scant seven and one-half G's.

One more dive!

Somehow the plane went into it. Barry did not know how he flopped the ship over. All that he knew was that when things started to clear up, he was still diving. Over the crash padding he could see the hangars of Hamlin Field coming at him. They were close—too close!

He had to do something. He would bury the nose of this Starwing in the ramp if he didn't do something. Men were scampering like mice to get out of his way. He hauled back on the stick—gave it all he had. No plane could stand this shock. No pilot could endure it. He'd pass out cold!

Back . . . back . . . back! Snap that stick back.

Barry was hugging it to him. Air screamed past him. The motor bellowed like a thunderbolt gone wild.

There was never a wobble. Like a swooping hawk, the Starwing took everything Barry gave it. It was a torture test if there ever was one. He had gone under a thousand feet at the bottom of his dive, and the accelerometer—the accelerometer was frozen at ten G's!

Body racked with pain, eyes red and distended, but with an inner satisfaction that was new and strange to him, Barry Martin brought the ship in. Todd would be pleased.

He taxied up on the apron and cut the motor. Exhausted, he leaned his head back against the padding. Men were running toward him—mechanics, field attendants, reporters. In the lead was Porter J. Hamlin, president of the Starwing Company. His face was flushed. His eyes gleamed with excitement.

"Wonderful, Kelso," he boomed. "Great work, man!"

He was climbing up the steps. Barry Martin tugged at the helmet and goggles.

"Sorry, Mr. Hamlin," he said. Surprise registered on the president's face. "Kelso couldn't make the flight. He's in the hospital at Wenatchee. Been operated on. Last night. Appendicitis."

The consternation on Hamlin's face changed to understanding. "I wouldn't have believed it if I hadn't seen it!" he exclaimed. With sudden inspiration he added, "Say, Barry—why don't you drop in and ask me for a job?"

"Okay," Barry said, "but right now I feel as though a ten-ton truck had run over me. Some other time. How would tomorrow morning be? Say around eleven o'clock?"



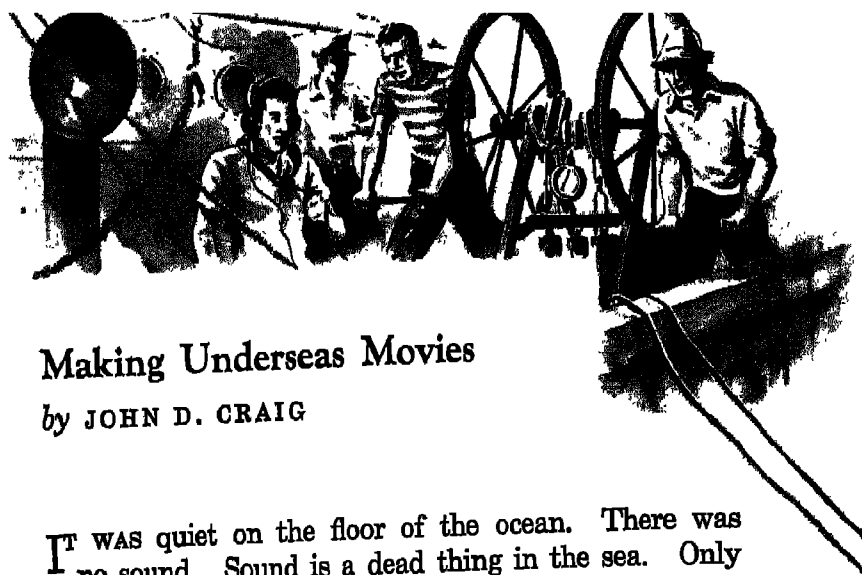
High Flight

by JOHN GILLESPIE MAGEE, JR.

O I HAVE slipped the surly bonds of earth
And danced the skies on laughter-silvered wings.
Sunward I've climbed and joined the tumbling mirth
Of sun-split clouds—and done a hundred things
You have not dreamed of—wheeled and soared and
swung

High in the sunlit silence. Hovering there,
I've chased the shouting wind along and flung
My eager craft through footless halls of air.

Up, up the long delirious, burning blue
I've topped the wind-swept heights with easy grace
Where never lark, or even eagle, flew,
And, while with silent, lifting mind I've trod
The high untrespassed sanctity of space,
Put out my hand and touched the face of God.



Making Underseas Movies

by JOHN D. CRAIG

IT WAS quiet on the floor of the ocean. There was no sound. Sound is a dead thing in the sea. Only the soft *tunk-tunk* of the air compressor on the tender above jarred the tympanums in my ears as it pumped air into the helmet that held my head and my life. Otherwise motion made no noise.

There was no gravity, it seemed, for on each foot I wore twenty pounds of lead, and about my shoulders a breastplate of forty pounds, so that I might remain and work on the earth of this curious undersea world.

I set up my automatic motion-picture camera, which had been lowered to me from the tender. Up there on the surface in the little boat were people. They were looking after my life line and my air line. They were listening at the other end of the telephone set which was built into my helmet. They were watching clocks to see that I did not stay too long. They were thinking clearly, watching intently, ready to haul me up at the first indication that something was wrong.

Within my diving dress I was surrounded by air, a thin but powerful wall which put its shoulder to the canvas of my dress and pressed outward a little harder

than the water was pressing inward; forty and a fraction pounds for every square inch. If anything happened to destroy that barrier of air, I would be killed. If my diving dress were ripped, or my check valve broken, or my air line cut, I would be spread out like jelly on bread.

But that would not happen to *me*. This was my first job in charge of a Hollywood camera crew, and I was determined to succeed. From nearby rock crevices, crabs and lobsters were peering at me. They seemed to be saying with their eyes, "What are you doing down here, Craig?" On the rocks were abalone, their faces turned away, their hard backs out, for safety. They said nothing.

Something tugged at my bare right hand. I lifted it up and held it before my faceplate, where I could see. The wandering, aimless fish, to which I had paid no attention, had been nibbling at it. Tiny streams of gray smoke were ebbing from a half-dozen unimportant cuts.

Down here the green of the water filters out the red in colors. That gray smoke was blood.

Fish were gathering in large numbers now, darting at my hand and skipping neatly away when I struck at them. Somehow the brats can smell blood under water, and I knew they would follow me right into the picture we were to take and mess up the whole scene.

I began looking for Campbell, the other photographer, with whom I was supposed to fight for a chest of sunken treasure while our automatic cameras recorded the scene. I had been waiting for him to circle around and set up his camera at another angle, so that we would have a film from both sides, with one taken over his shoulder and one taken from over mine.

Finally I spotted him, just at the edge of my horizon. He had set up his camera approximately at right angles to mine and pointed it toward the treasure chest. He seemed to be just about ready, and for fear of wasting precious time I decided to dispense with the fish. I took my knife from its scabbard, went to some rocks behind my camera, pried off an abalone, and turned it upside down and helpless for the fish to eat. They went after it ambitiously, and I returned to my camera. Campbell waved that he was ready to go. Just before I tripped my camera, I looked back toward the abalone.

It was almost gone, but other eating had commenced. The little fellows had been fighting over the food and had stirred up such a fuss that other and larger fish had been attracted, and now these bigger fellows were eating the little fellows, snapping them in two and clouding the water with the gray smoke of blood.

That I knew was bad, and I set out toward the chest with misgivings. This was tropical water, off the coast of Lower California, and there were sharks about—sharks whose uncanny sense of smell sends them amazing distances to any spot where blood is spilled.

But the cameras were going, and Campbell was walking toward me. We met at the chest, paused to look each other over, and did a silly dance that resembled a

fight. Anything looks like a fight under water, because of the slowness of motion. Finally I waved my knife at Campbell, who fell as if wounded. Then I took a lot of ten-cent jewelry out of the chest and staggered off.

I shut off the cameras and then turned to see Campbell rise and rush toward me. He put his helmet against mine, a touching gesture which allows the vibrations in one helmet to be heard in the other, so that two divers can communicate by talking through their hats.

"Going to shoot again?" he asked.

"Yes," I replied.

"Us or 'them?'" he asked.

His hand was pointing upward, and I leaned back until my faceplate pointed almost vertically into the water above my head.

There were two of them, not fifteen feet above me—two beautiful blue-fin sharks, thirteen to fifteen feet



long, and magnified, as are all things under water, a third of their size again.

"This is it," I said to myself.

I had been frightened before. There was the time the rattlesnake lay on a mountain trail between me, my horse, and a thousand-foot drop. There was the time we were prisoners of the Riffs in North Africa. There was the time a wounded tiger climbed up my tree and my last bullet missed him.

But this was different.

A man can die in a violent way upon the earth, and it is not so hard. He can fight his adversary as best he can, and he dies in his element—air—with his lungs filled with it and his feet and arms thrashing. But it is far worse to die in a canvas suit at the bottom of the ocean, with your body full of nitrogen and your legs and arms helpless to move except with the slowness with which they move in a dream—to die doubly, from the tearing teeth of a shark and from the horrible pressure which squeezes you to pulp.

I wished most heartily that I had never learned to dive. I wished that I had not grown to like the *tunk-tunk* of a compressor pumping air into my helmet. I wished that I were anywhere but here.

But here I was down at the bottom of the sea, with two blue-fin sharks hovering over me.

I was yelling into the telephone while these thoughts screamed in my mind.

"Antonio! Antonio!"

"Yes, Johnneeee, what is it?"

The Mexican was there at the pumps. Old Antonio, the sweetest hombre in Christendom. He was there!

I was breathing too rapidly, burning myself up.

Better take it easy. Tell Antonio what it's about. Maybe he can help. He'll get you up. There may be a chance. Don't let Campbell know you're scared.

"Antonio! Listen. We've got a couple of sharks down here. Blue fins. Yes, right over us. Some fish were fighting, and I guess the blood brought them. What shall we do? Yes, they're getting closer all the time. Hurry! Pull us up as fast as you can. We'll inflate and try to shoot by them. Sure . . . What?"

"Sure," Antonio was saying. "Sure, Johnneeee. In forty years I have never heard of a shark grabbing a man when he's on the bottom. Sure, Johnneeee. Never on the bottom. Always when they are coming up. You stay on the bottom. Take it easy, Johnneeee!"

Stay on the bottom and watch those things come closer. Blue fins! Tiger sharks and white sharks are bad enough, but of the three man-eating varieties the blue fin is the worst. Stay on the bottom—or be torn to pieces trying to get up!

Campbell had been told the same thing through his telephone set, and we made faces at each other, pointing our hands downward and raising our eyebrows. He clanked his helmet against mine and said, "Remember in India they said a tiger had never been known to climb a tree, and yet that wounded devil went right up after you?"

I remembered very well. And now this body which had given me so much pleasure in life was numb and fettered on the bottom of the sea—was perhaps about to die.

To die at twenty-eight! We were pretty young meat—Campbell was only twenty-six. The waves of fear almost died out, and I stared in hatred at the sharks.

They watched us as cats watch mice, and we watched them as mice watch cats. Time and again they drifted over us and out of the limited field of our faceplates. But we turned as quickly as we could, fearful of being struck from behind.

It seemed like years, of course, and so far as that goes it really was years. A man measures time by his mind and his soul, not by his body. And by my soul and my mind the sharks were with us through long and frightening years.

Every decade or so they would move off, up through the waters, and disappear. But they returned in a few months and went on with their cruising. Then, roughly about the end of the first century, I learned something.

There were two streams of air bubbles constantly ascending, one from the exhaust valve in Campbell's helmet and one from the exhaust valve in my helmet. Through these paths, I observed, the sharks always went.

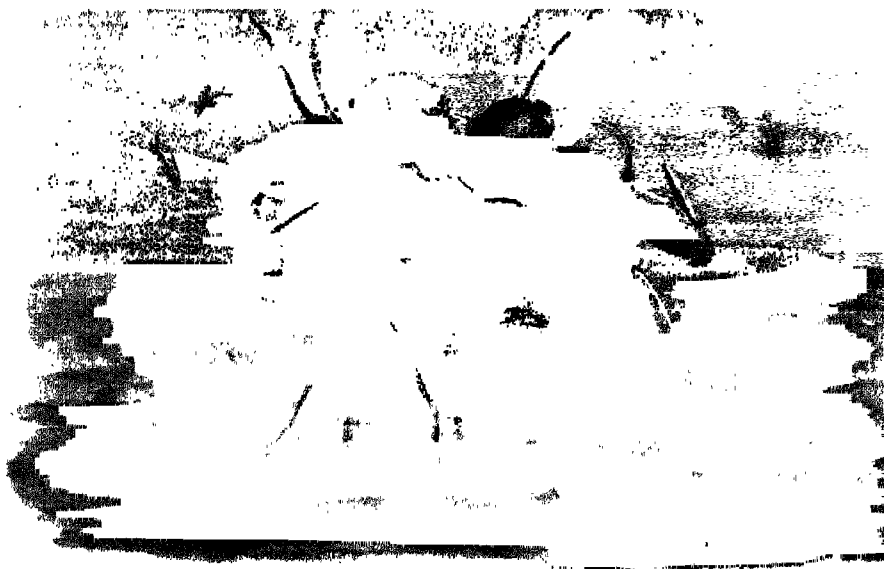
I banged my helmet against Campbell's. "Try shutting off your exhaust valve," I said. "The bubbles seem to attract them."

His bubbles ceased, and I closed my exhaust valve, so that the air stayed in the dress. We had to stop the air from coming in, too, in order to keep from inflating our suits and rising against our wills, but that wouldn't matter for a little while—eight minutes.

Sure enough, after a few decades, the sharks, missing the bubbles, moved off and disappeared. I telephoned Antonio that they were gone.

"Very good, Johnneeee," he said. "But you better wait just a little while, to be sure."

Standing there waiting for them to return was no



fun; so I decided to shoot the scene again, though it was now so far back in my mind that we seemed to have done it in the days of silent films. But back we went, with our bubbles rising again, and whether we were so frightened that we wanted something to occupy ourselves, or whether we were just so scared that we forgot we were acting, the second fight on the films was a honey.

I had just shut off the cameras when Campbell came running again, banging right into me in his haste and blindness.

"They're here again!" he screamed. He sounded like a lady who has seen a mouse. Under water strange things happen to a man's voice—it gets high and thin and querulous.

And there they were, crossing and recrossing the streams of bubbles, having a swell time.

They had not attacked us. And Antonio, I remembered, had never misinformed me. Therefore we were

safe as long as we stayed on the bottom. But we couldn't stay there forever. Something had to be done.

It took a long time for my brain to figure out an experimental gesture. If the sharks liked bubbles, they must respect them; and if they respected them, they might fear them. Anyhow, they didn't quite know what they were.

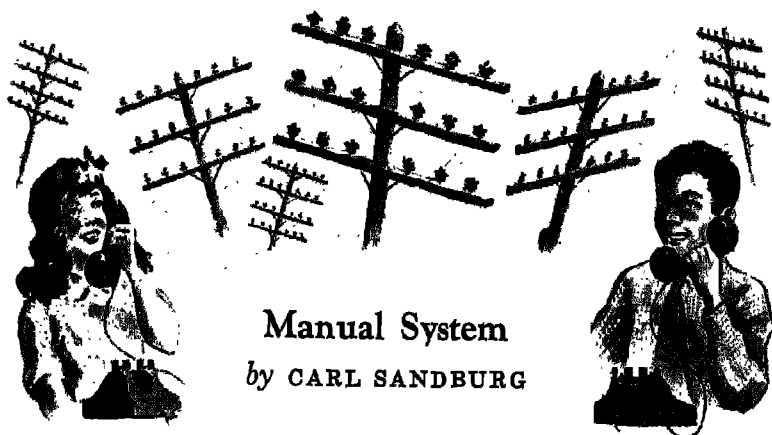
Slowly I closed my outlet valve, keeping the air in the dress. The dress began to fill, to balloon, and to tug at the weighted shoes. Had I slipped the catch which drops the weights on the shoes, I would have shot upward. But I stayed right where I was and watched the sharks. When one of them passed through the bubble stream from Campbell's helmet and turned so that he was facing me, I pointed my right arm at him, pulled the elastic cuff away from my wrist a little, and shot a fine stream of bubbles at him.

He turned like a boomerang at the peak of flight and disappeared. His pal followed him.

We told Antonio, and, after making us wait for a while, he hauled us up. All the way up, my mind, my heart, and my whole being whimpered and cried, for we could not go up as fast as we wished for fear of getting the dreaded bends. All the way I expected to feel a tug as an arm or a leg went away from me.

But nothing happened, and Antonio laughed and laughed at the stories we told him and at my brave recital of chasing the sharks away with bubbles.

"You know what I think, Johnneeee?" he said, taking his pipe from his mouth and pointing it at me. "I think maybe all sharks can be scared with bubbles. Yes, Johnneeee, a new weapon you have found—with bubbles you shoot man-eating sharks!"



Manual System

by CARL SANDBURG

MARY has a thingamajig clamped on her ears
 And sits all day taking plugs out and sticking
 plugs in.
 Flashes and flashes—voices and voices calling for ears
 to pour words in;
 Faces at the end of wires asking for other faces at the
 end of other wires:
 All day taking plugs out and sticking plugs in,
 Mary has a thingamajig on her ears.



Seagoing Tractor

by WILLIAM HAZLETT UPSON

MY NAME is Alexander Botts. I am a salesman for the world's greatest tractor, the Earthworm. This tractor can do anything that any other tractor can do—and do it twice as well. It almost sells itself, and there would be no need for a super-salesman like me except for the fact that almost invariably something manages to go wrong at the last moment. Then I have to step in and smooth things out in an attempt to get the prospective buyer to sign on the dotted line.

That is the way it was when I tried to sell an Earthworm to Mr. Caleb R. Hubbard, of Hubbardston, Maine. I arrived at that town early one summer morning and registered at the Hubbardston Hotel. The moment I called upon Mr. Hubbard I learned I was up against a tough proposition.

Mr. Hubbard explained at once what he wanted.

"I own a tract of land on the seashore about ten miles north of here," he said. "At the present time I have a small hotel there called the Seaside Inn. It has been so successful that I am going to build a much larger hotel—which means that I will have to take over a whole lot of building material such as lumber, cement, plumbing supplies, and so forth."

"When it comes to hauling freight," I said, "the Earthworm tractor can't be beat."

"The trouble," Mr. Hubbard went on, "is that the place is almost inaccessible. If you will step over here, I will show you what I mean."

He led me across the room and pointed to a map which



hung on the wall. "Here is Hubbardston," he said, "where we are now. On the seacoast just north of town is Hubbard's Point, which is about five miles wide and which extends eastward out into the sea about twenty miles. Just north of Hubbard's Point is Sandy Inlet, which is about five miles wide at the mouth and which extends inland to the west about twenty miles. The Seaside Inn is right here—on a rocky hill just to the north of the mouth of Sandy Inlet.

"The inn," Mr. Hubbard went on, "is thus only ten miles north of here as the crow flies, but it is very hard to reach. If you go by sea, you have to sail out around Hubbard's Point. If you go by land, you have to circle around Sandy Inlet. Of course I could go by air, and there is a man in town now trying to sell me a small airplane. I may buy it. I have a field over there big enough to land on, and I could transport the guests of the inn by air very nicely."

"But you couldn't carry much freight on a small plane," I said.

"No," he admitted, "I couldn't."

"How have you managed in the past?" I asked.

"We've used a rented motorboat," he said. "That means we have to take a fifty-mile trip out around the end of Hubbard's Point. It takes almost a day, and if there's a storm, we can't make the trip at all."

"I see," I said. "You want to haul the stuff overland. Is there a road?"

"There is a good road," said Mr. Hubbard, "which leads five miles across the base of Hubbard's Point to the south shore of Sandy Inlet. From there you can see Seaside Inn. It's only five miles farther on, but it's on the other side of the inlet, and to get there by land you have to take a fifty-mile drive on very poor roads clear around the inlet."

"Why not haul your stuff across the point by tractor," I suggested, "and then take it over the inlet by boat?"

"The inlet is full of rocks," said Mr. Hubbard. "The tide sweeps in and out at about ten miles an hour, and at low tide it's practically dry—nothing but an expanse of mud and sand, with here and there a bunch of rocks. So it's a bad place for boats. But I thought perhaps we could drive straight across the inlet with one of your tractors."

"What!" I said. "With that water running in and out at fearful speed!"

"We would go over when the tide is out," said Mr. Hubbard. "At low tide we have at least four hours when the sand flats are uncovered. If your tractor can run on fairly soft ground, and if it can make the five miles in less than four hours, without breaking down, I think it will be just the machine I need."

"Mr. Hubbard," I said, "your troubles are over!"

I gave him a sales talk, expecting him to sign an order then and there. But he demanded a demonstration, and I promised him a very convincing one.

I hurried back to the hotel. I hired an automobile. I drove across Hubbard's Point to the south shore of Sandy Inlet. It was low tide, and my inspection of the sand made me sure that it was solid enough for the Earthworm tractor and a wagon. Another thing I noticed was a building with a sign, "Down East Canning Company." Out in front on the sand were a lot of men digging clams and taking them into the factory to be canned.

Immediately I laid my plans. I knew that over at Castle Harbor, ten miles from Hubbardston, the Maine State Highway Department had a ten-ton Earthworm at work on the roads. I drove my hired automobile over there and located this tractor. It was pulling a twelve-foot-blade grader along the road.

The tractor was in charge of an elderly fellow with a walrus mustache by the name of Andy Meiklejohn. After a long discussion Andy agreed to drive the tractor to Hubbardston early the next morning and work for me one or more days; he could get permission, he said, from the Highway Department.

Next I returned to town and called on Mr. Hubbard.

"Mr. Hubbard," I said, "I have just got hold of an Earthworm tractor. I am going to drive it across the sands of Sandy Inlet tomorrow. I want you to have a wagon loaded up with at least five tons of building material for me to drag along. And I hope you can come yourself."

"Fine!" said Mr. Hubbard. "I'll have them load up a wagon this afternoon at the lumberyard. But I

can't go with you myself. I have arranged to fly to the inn tomorrow with the man who is trying to sell me the airplane."

"I will probably see you over there then," I said. "Where can I get an exact timetable of the tides?"

"You had better see Captain Dobbs. He owns the motorboat which I have been using for trips to the inn. He knows more about the tides than anybody else in town."

I found Captain Dobbs down on the water front. I explained exactly what I was going to do, and he told me the morning low tide would be from five thirty to ten thirty and the afternoon low tide from about six until ten. I decided to go the next afternoon.

After supper at the hotel I got to talking with a man from New York who had arrived on the afternoon train. He was small and timid looking. He said that he and five others were going over to the Seaside Inn tomorrow. I learned later that the five others were his niece, Miss Mabel Cortlandt, and her four aunts. The timid little man told me that all of them dreaded the thought of taking the motorboat ride over to the inn; last year the ride had made them seasick.

"You don't have to go by motorboat any more," I said. I then explained how I was going by tractor and suggested that his party ride along on the wagon. He thanked me heartily and said they would be ready.

The next day everything started out very well. The weather was fair, sunny and perfect. At about nine o'clock Andy Meiklejohn rolled up to the hotel in his Earthworm. I had him drive around to a garage, where the two of us spent several hours greasing the machine and otherwise putting it in perfect condition.

After a late lunch we drove over to the lumberyard

and hooked onto Mr. Hubbard's wagon. It was loaded with a lot of heavy planks and timbers, on top of which were tied several kegs of nails, a lot of picks and shovels and other tools, and a big road plow.

When we got to the hotel, the gentleman from New York and the five women of his party were waiting for us. His niece, Miss Mabel Cortlandt, was good-looking. Her four aunts were very large and not at all good-looking. By way of baggage they had four trunks and eighteen suitcases; they also had a lot of boxes, blankets, sweaters, coats, umbrellas, one dog, and one canary bird in a gilded cage.

The aunts swarmed around the wagon, giving orders about storing their luggage. The little man from New York seemed bewildered. Accordingly I took charge of things myself, directing the loading of the cargo. There was room for most of the smaller bundles in the grouser box of the tractor. With heavy ropes we lashed the trunks and suitcases on top of the lumber behind



the plow. I had the aunts and the man sit on the suitcases. I allowed the good-looking young lady to ride on the wide, comfortable seat of the tractor with Andy and me.

"All right, Andy," I said. "Let's go."

The tractor ran beautifully, and we arrived at the canning factory on the south shore of Sandy Inlet a few minutes after six o'clock. The tide was out—just as Captain Dobbs had said it would be. Andy drove straight out onto the vast expanse of slimy sand.

I was delighted to observe that the tractor hardly sank in at all. The wagon wheels cut into the soft sand to some extent, but we moved along as nicely as anyone could wish.

We passed very close to the clam diggers. They looked at us as if they thought we were crazy and shouted and waved to us. But we had no time to bother with them. We drove on.

As the sun was sinking on our left, Andy inquired, "What time did you say the tide is due to come in?"

"Ten o'clock," I said. "Why?"

He pointed toward the east. "See that black line about a mile away?" he asked.

"Yes," I said. "It looks like the edge of the water."

"It is the edge of the water," said Andy, "and it's moving toward us. The tide is coming in!"

"Impossible!" I cried. "Captain Dobbs told me——"

Mabel Cortlandt spoke up. "I wouldn't count too much on the Captain. He's always taken us across, and he knows that if you get across here with this tractor, his job with the motorboat will be gone."

"Why, you don't think he could be as low down as that!" I said feebly.

"I don't know," said Andy, "but if you ask me, I would say we had better turn around and head back toward that canning factory."

I took another look at the black line of water. It was now less than a half mile away, and it was coming fast. By now the four aunts had noticed it, too. They were waving their arms and yelling at me.

"All right," I said to Andy. "Let's turn back."

As the water continued to race toward us, I got one of my brilliant ideas. I could see that we could not possibly reach the canning factory before we were overtaken. So I had Andy stop the tractor and back it up a few inches to loosen the hitch. Then Andy and I got out into the ankle-deep water and unfastened the tractor from the wagon. Next we climbed up onto the load of lumber and moved the trunks, packages, human beings, and animals up to the forward end. Then we loosened the chains and ropes that held the lumber, and laid a half-dozen long six-by-eight timbers from the rear end of the load of lumber down to the sand. By this time the water was about six inches deep.

Andy then got into the tractor, drove it around to the back of the wagon, and started it up the sloping timbers. It was a steep climb, but finally Andy succeeded in getting the tractor up on top of the load of lumber.

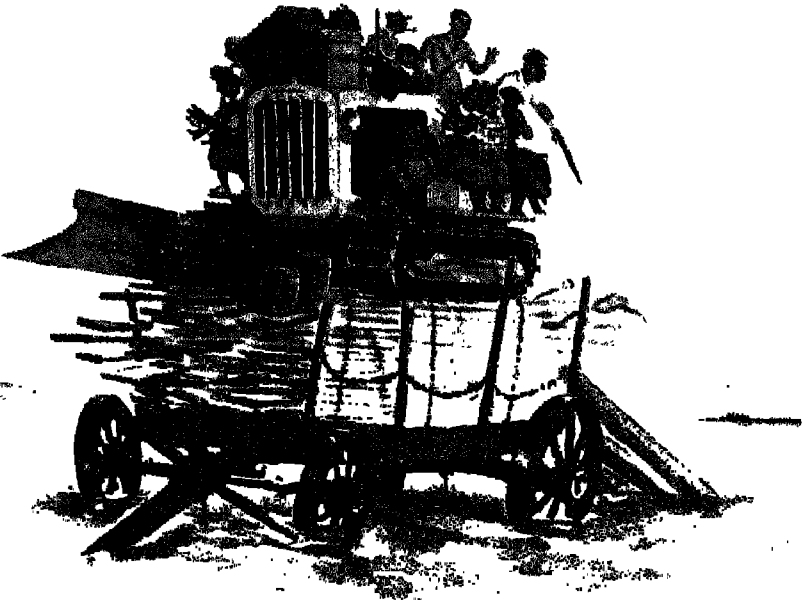
We lifted the six-by-eight timbers back in place, tightened the chains and ropes so that none of the lumber would be washed away, and made everything shipshape by lashing the trunks, the suitcases, and other baggage on top of the big tractor hood as high above the water as possible. Then Andy and I helped the four fat ladies and the gentleman from New York up onto the tractor. As the seat was already reserved for

Mabel and Andy and myself, it was necessary for these other people to perch around on the grouser box and the gasoline tank. One of the ladies held the bird cage in her lap, and another took charge of the pup.

At once I made a short speech.

"I wish to assure you that we are all perfectly safe," I said. "When I started to cross these flats, I had information that led me to believe that I had ample time to get to the other side. Unfortunately that information was false. Now we have had to stop, and I have placed my passengers on top of the tractor. But we are perfectly safe. All we have to do is wait until the tide goes out again. Then we can proceed on our way."

"But the tide isn't going out," said one of the fat ladies. "It's still coming in. And it's going to get so deep that it will go right over the top of this machine, and we'll all be washed away and drowned. I demand that you take us ashore at once!"



"Madam," I said, "if there were any way to take you ashore, I would take you. But it can't be done. Everyone will have to stay here, and while you remain you will have to do exactly as I tell you. Legally speaking, this tractor is now a boat upon the high seas. I am the captain, and I have complete authority over my crew and passengers. If there is any disobedience of any kind, I can have you tried for mutiny."

I was gratified to see that the four hysterical females appeared to be completely awed. Andy and the gentleman from New York said I could count on them. And the young niece whispered to me that she was having a swell time—and wasn't it all too exciting for words?

As the sun sank lower, the tide rose higher; and just as the sun disappeared, the water reached the bottom planks of our load of lumber. By ten o'clock the waves were washing right over the top of the lumber, and we were all getting pretty anxious. By eleven o'clock the water had risen at least another foot; the waves were sloshing against the side of the tractor, and the spray was dashing in onto the floor in front of the seat.

One of the aunts, no longer able to restrain herself, broke out, "If it comes much higher, we're lost. I think it is time you did something, Mr. Captain. What you ought to do is run the tractor off of here while there is still time. Then the lumber will float to the surface and we can use it as a raft."

"Not on your life," spoke up Andy. "This tractor is the property of the Maine State Highway Department, and I am responsible for it."

"And what is a tractor," asked the lady, "as compared to our precious human lives?"

"The tractor will remain where it is," I announced firmly, "and this discussion will cease at once."

They shut up. At half past eleven it looked as if the water was going down. And at midnight we began to see the uppermost planks of the lumber under the tractor. We knew then that all was well. Gradually the water sank lower and lower until finally—just as the sky began to brighten with the dawn—I looked down and saw wet shiny sand all around us.

Andy and I put the big timbers in place at the back of the wagon. Andy backed the tractor down on to the sand and drove around and hitched onto the wagon once more. My plan was to dump my passengers at the canning factory, where they could telephone for a taxi to take them to town, and then I was going to turn right around and head for Seaside Inn.

This plan was started at once, but was not carried through without a series of disturbing accidents. For one thing, we hit a deep mud hole into which the wagon sank deep. Then when Andy had unhooked the tractor, driven it around, and hooked onto the rear so that we could pull the wagon backward out of the mud, things happened in a hurry. The backward pull loosened the nut off the end of one of the wagon axles; the left hind corner of the wagon dropped down; and the four ladies, the gentleman from New York, the four trunks, the eighteen suitcases, the road plow, the nail kegs, the dog, and the canary bird all slid off gently but firmly into the mud.

For some reason the four aunts seemed to blame me for this accident. They told me exactly what they thought of me. But despite their tirade I chivalrously had Andy make several trips with the tractor and carry them and their belongings over to the canning factory.

They trooped indignantly into the factory—which was not locked, although the workmen had not yet appeared—and one of them phoned Mr. Hubbard to come out and get them at once. She said they had been thrown in the mud, insulted, kidnaped, and half drowned by a crazy tractor salesman.

As they did not seem to be enjoying my company, I withdrew and went out with Andy to work over the wagon. After hunting around a while we were fortunate enough to find the nut which had come off the axle.

Pretty soon we saw Mr. Hubbard driving up in a station wagon. At once the four excited females gathered around him, talking fast and furious. Very soon he charged toward us.

"What do you mean by pulling such a stunt?" he yelled.

"But Mr. Hubbard," I said, "you don't understand. I can explain everything."

"I don't want to hear another word," replied Mr. Hubbard. "I wouldn't take your tractor as a gift. If you ever speak to me again, I'll knock your block off."

And before I could answer he turned around and went back to his car. The party from New York piled in all their belongings, and Mr. Hubbard drove off toward town.

I saw at once that if I were to succeed in selling Mr. Hubbard a tractor, I would have to work fast. He had built up quite a lot of sales resistance.

By this time it was almost seven o'clock, and the workmen had begun to arrive at the canning factory. The boss of the clam diggers asked me what sort of trip we had had in the tractor. I had to admit it wasn't very good.

"We saw you starting out last night," he said. "We tried to yell to you that the tide would soon be in. When you went on, we decided your machine was probably fast enough to get you across ahead of the tide."

"It wasn't," I said. "Would it be possible," I went on, "for me to hire some of your men to help unload that lumber, put the wheel back, and then reload the wagon?"

"I'm afraid not," he said. "We only have about an hour before the tide comes in, and I'll need all my hands to dig clams."

"Maybe," I said, "we could speed up the clam digging a little with our tractor."

"You could try," said the boss clam digger.

Andy and I ran the tractor out to the disabled wagon and hitched onto the big road plow. Then we drove back and forth across the mud flat, plowing deep furrows. In about ten minutes we had turned out more clams, the boss told us, than twenty men could dig in a whole morning. He was very much pleased and let us have a dozen men to unload the lumber, put on the wheel, and reload the lumber.

The tide began to come in a little after eight o'clock. The boss clam digger said that the tide would go out again at about four in the afternoon. As I felt that this information was reliable, I decided to start out for the Seaside Inn at that hour.

Andy and I ate a hearty lunch at the canning factory with the boss clam digger. Soon afterward we heard the roar of an airplane that was passing overhead. The plane was coming from Hubbardston, and it headed out over Sandy Inlet toward the Seaside Inn. I knew that the airplane salesman must be taking Mr. Hubbard for a hop. As the machine went over, I

noticed that the motor was missing. But it flew right on until it got more than halfway across the inlet. Then it seemed to hesitate. And finally it glided down gently into the water.

Everybody around the canning factory became very much excited, because this plane was not a seaplane. It was only a small land machine with wheels on the bottom. The boss clam digger got out a couple of pairs of field glasses, which we trained on the plane. It seemed to be about three miles away. Its nose was completely under water, while the tail and the rear edges of the upper wings stuck up into the air. As we looked we saw two men climb up on top of the wings and start waving their arms.

We watched the wrecked plane for about ten minutes. The two men kept up their frantic waving. Then we noticed a motorboat coming in from the sea. It was full of people. It had almost reached the plane when it suddenly stopped. It seemed to be stuck.



Two o'clock came. Then three o'clock. All this time, of course, the tide was running out. And a little before four o'clock the sand flats began to emerge.

"All right," I said. "It's time for us to move."

Andy and I got into the tractor, and with the load of lumber rolling along behind we started out across the inlet. Everything went fine, and about an hour later we had reached the stranded plane. The propeller had been broken, and the wings slightly damaged when they hit the water, but otherwise it seemed to be all right. Mr. Hubbard and the pilot came walking across the sand to meet us. Neither of them was hurt.

The last time I had seen Mr. Hubbard he had told me that if I ever spoke to him again he would knock my block off. But now when I asked him if he would like a ride for himself and his friend, and a tow for the machine, he replied most politely and with many thanks that he certainly would. He and the pilot at once climbed into the lumber wagon.

I drove over to the motorboat, which was several hundred yards away, high and dry on top of a rock. There was a good-sized hole in the bottom of the boat.

As we drove up I heard a female voice. It belonged to Mabel Cortlandt.

"Well! Well!" she said. "If it isn't old Captain Botts himself with his seagoing tractor!"

"Right you are," I said. "This seems to be a regular reunion." And it was. For there in the boat sat the gentleman from New York, the four aunts, the dog, the canary bird, the four trunks, the eighteen suitcases, and all the other equipment.

Everyone jabbered at once. Mr. Hubbard listened in silence. Then he merely said, "I suggest that we

get a move on and get out of here before the tide comes back in."

Accordingly we loaded all the people and the equipment onto the wagon. Mabel took her old place on the seat of the tractor. We dragged the motorboat carefully and gently off the rock and hitched it on behind the lumber wagon with a piece of heavy rope. After this we drove over to the plane and hitched it on behind the boat. Then we started across the sand toward Seaside Inn.

We looked like a circus parade. I was pleased to find that the Earthworm had ample power to handle the four tons of lumber, the heavyweight passengers, the motorboat, and the airplane. We arrived at the inn all safe and sound and just in time for a splendid supper.

After eating I got ready to launch forth on one of my best selling talks. But I didn't need to. Mr. Hubbard signed up for a ten-ton tractor without any urging at all.

Early the next morning, when I started back across the sands with Andy, everybody was on hand to wish me good-by and good luck. Mr. Hubbard thanked me. The gentleman from New York and the airplane pilot shook me cordially by the hand. The four aunts thawed out sufficiently to smile pleasantly. And Mabel thanked me for having given her the most thrilling, adventurous, and exciting time she had had for a long while.

Added to all these signs of good will and friendship was another evidence of my success as a salesman. For when Andy and I reached the canning factory, the boss clam digger came out, greeted me most affectionately, and at once signed up for a five-ton Earthworm to be used in digging clams.

Death of a Hero

by RICHARD ARMOUR

*Science still can't tell why rubber bounces.—Headline in
HERALD TRIBUNE.*

IT SPLIT the atom, sped the plane,
Conditioned air, and deadened pain;
It lengthened life and streamlined wars;
It measured molecules and stars.
Then one day lamely it announced
It didn't know why rubber bounced,
And science, dating right from then,
Just never seemed the same again.





Plasma: Medical Wonder of Today

by CHARLES H. ELLIS, JR., and
ROBERT E. S. THOMPSON

AT 1:32 o'clock on the morning of October 17, 1941, in a pitching sea, an American destroyer, the U. S. S. *Kearny*, was plowing toward Iceland 350 miles away. A moment later a German torpedo ripped into her flank. A lifeboat broke loose and crashed against Chief Boatswain's Mate Leonard Frontanowski.

A few hours later a seaplane swooped low over the U. S. S. *Kearny* and three small parachutes fluttered down, missed the deck, and dropped into the sea. Sailors risked their lives to put out in a lifeboat, gather them in, and struggle back to the wallowing destroyer. To each parachute was attached a water-tight box. A doctor ripped one open, took out a bottle of golden dry powder and a bottle of sterile water, mixed them together, and started transfusing the mixture into Leonard Frontanowski's blood vessels.

Slowly the beads of sweat pocking his forehead evaporated, and his hands and feet grew warm. The starved heart sucked up the fluid and shot it out into the thirsty arteries, and the pulse, so rapid and so faint, steadied down to a firm measured beat. As the third pint flowed into his body, Frontanowski stirred and opened his eyes. He was out of danger.

The yellow powder that saved his life was dried blood plasma. It had been prepared 3000 miles away in Philadelphia from the blood of housewives, office workers, and truck drivers, and had been shipped to Iceland for just such emergencies.

Blood plasma is one of the newest and greatest of medical discoveries. It is the liquid part of the blood—the fluid which remains after the red and white corpuscles have been removed.

Plasma can be preserved in the liquid state. Better still, it can be frozen solid until it looks like frozen cream and can be kept that way for years. And, best of all, it can be dried. Its life-giving power will survive for at least five years in intense heat or equally intense cold.

Early in the Second World War the Red Cross undertook to collect blood plasma for the Army and Navy from volunteers throughout the country. One of the earliest volunteers was a man from the little town of Williamson, Wayne County, New York. He traveled twenty-five miles to give a pint of his blood, and then went back home to spread the gospel. Out of a population of 1000, he recruited 209 donors. The plasma from their blood was soon coursing in the veins of Americans in the Philippines, Iceland, and other strongholds.

While blood plasma is a new idea, blood transfusion

is not. In the year 1900, in the city of Vienna, young Karl Landsteiner found the answer to a problem that had been puzzling the medical profession for 230 years—why transfused blood revived some persons and threw others into convulsions. Not all blood is the same, he discovered. There are several types of human blood, and the transfused blood must match the patient's blood, or the corpuscles will clump together and cause death.

A second problem—how to prevent the disastrous clotting during transfusions—was solved on the eve of the First World War by Dr. Richard Lewisohn, in New York, and Professor L. Agote, in Buenos Aires. They added a little sodium citrate to the blood.

On January 30, 1915, Dr. Richard Weil, of New York, announced that he had preserved human blood mixed with sodium citrate for five days and then had successfully transfused it into another human being! From the Rockefeller Institute came an even more astounding announcement. Drs. Peyton Rous and J. R. Turner reported on February 1, 1916, that blood stored four weeks could be safely transfused.

At that very moment men were dying on the battlefields of Europe when they might have been saved if stored blood had been available. A young Rockefeller physician named Oswald H. Robertson sailed for England and soon was at the front in France, working out methods of bringing blood to the wounded. He built an icebox out of old packing boxes and sawdust, fashioned transfusion equipment out of some discarded bottles, and was doing his best to ignore the skeptical smiles of his colleagues when a German offensive struck his sector. Selecting only men who were so badly wounded that they certainly would die without

transfusions, Doctor Robertson began pumping stored blood into their veins.

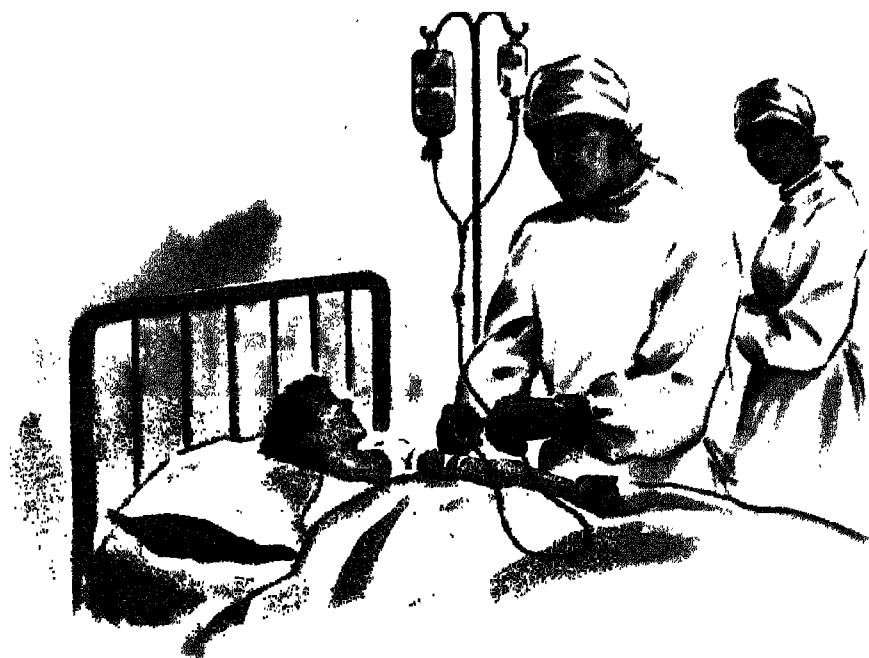
When it was all over, he sat down and wrote this report to the *British Medical Journal*:

The blood used for transfusions had been kept for periods varying up to twenty-six days. . . . The effect of transfusion with preserved blood was fully as striking as that observed after the giving of freshly drawn blood. There was the same marked improvement in color; the pulse became slower and stronger; and the blood pressure showed an increase of twenty to forty points.

Other doctors and scientists continued the study of blood transfusion, slowly solving the many difficulties. Among these students was Dr. Max M. Strumia, who had fought with the Italian armies through the First World War and then had emigrated to the United States. His experiments on rabbits paved the way for the use of plasma in performing transfusions on human beings.

The experiments by Dr. Strumia and others proved that plasma could be used without causing convulsions in people, and that large amounts could be given safely. The next discovery made by Dr. Strumia was that plasma could be frozen just like a cake of ice. The plasma could be stored indefinitely that way.

On March 17, 1934, a twelve-year-old boy was brought to Bryn Mawr Hospital, at Bryn Mawr, Pennsylvania, where Dr. Strumia had carried on his work. The boy was suffering from mastoiditis and a blood-stream infection. His temperature was 107.4 degrees and death seemed imminent. Dr. Percival Nicholson tried transfusions of whole blood, but for some reason the blood clotted in the veins, and red blood



cells were destroyed. Then he tried Strumia's plasma, and the lad recovered.

"The treatment," Doctor Nicholson reported in the *Journal of Pediatrics*, "resulted in complete recovery without complications in a case which otherwise would have been fatal."

That is the first published record of the saving of a life with blood plasma, and it started a wave of research work. Many men contributed brilliant work to the project; men such as Dr. John Elliott, a young Salisbury, North Carolina, chemist, who shipped plasma to South America and back and then transfused it into patients to prove that time and travel did not harm it.

In 1930 Dr. William J. Elser, of the Cornell University Medical School, had succeeded in convert-

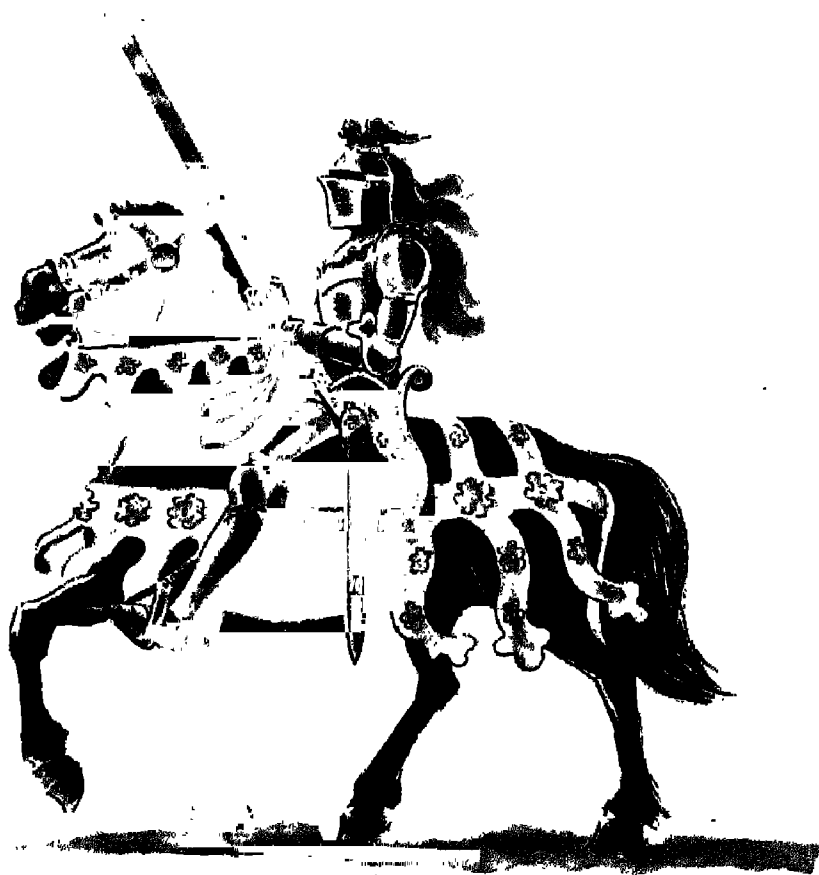
ing liquid plasma into a powder. Now the life-saving product could be transported cheaply and compactly to any part of the world. This proved of inestimable value at the outbreak of the Second World War, when shipping space on our ships was in great demand for transporting troops and all manner of equipment.

But before great quantities of plasma could be shipped, it was necessary to collect the blood itself. Early in the war the American Red Cross was enlisted to collect thousands of pints from volunteer donors. Blood-donation centers were set up in many cities, and mobile Red Cross medical units were outfitted in trucks which visited rural communities.

At first some people, though anxious to make a contribution that would save lives, were a little frightened at the prospect of giving up a pint of blood. But they discovered that the process is a simple one, causes no pain, and has no bad after-effects.

On our first visit to a blood center we met all types of Americans. There was the Jewish girl who begged the nurses to take a full quart. There was the woman who had no men in her family who could fight, and so she wanted to give her blood. There was the young fellow whose best friend had died in the Navy because there was no blood available for transfusion. There was the middle-aged man who turned up regularly every ten weeks to the day; the Red Cross had established this period of ten weeks as the limit within which a person could contribute blood. And there was the German refugee who said, "I am so grateful to America. I have no money to give, but I have blood."

Good Stories of Imagination





The Dog of Pompeii

by LOUIS UNTERMEYER

TITO and his dog Bimbo lived (if you could call it living) under the city wall where it joined the inner gate. They really didn't live there; they just slept there. They lived anywhere. Pompeii was one of the gayest of the old Roman towns, but although Tito was never an unhappy boy, he was not exactly a merry one. The streets were always lively with shining chariots and bright red trappings; the open-air theaters rocked with laughing crowds; sham battles and athletic sports were free for the asking in the great stadium. Once a year the emperor visited the pleasure city, and the fireworks and other forms of entertainment lasted for days.

But Tito saw none of these things, for he was blind—had been blind from birth. He was known to everyone in the poorer quarters. But no one could say how old he was; no one remembered his parents; no one could tell where he came from. Bimbo was another

mystery. As long as people could remember seeing Tito—several years at least—they had seen Bimbo. The dog never left his side. He was not only a watchdog, but mother and father to Tito.

Did I say Bimbo never left his master? (Perhaps I had better say "comrade," for if anyone was the master, it was Bimbo.) I was wrong. Bimbo did trust Tito alone exactly three times a day. It was a custom understood between boy and dog since the beginning of their friendship, and the way it worked was this:

Early in the morning, shortly after dawn, while Tito was still dreaming, Bimbo would disappear. When Tito awoke, Bimbo would be sitting quietly at his side, his ears cocked, his stump of a tail tapping the ground, and a fresh-baked loaf of bread—more like a large round roll—at his feet. Tito would stretch himself, Bimbo would yawn, and they would breakfast.

At noon, no matter where they happened to be, Bimbo would put his paw on Tito's knee, and the two of them would return to the inner gate. Tito would curl up in the corner (almost like a dog) and go to sleep, while Bimbo, looking quite important (almost like a boy), would disappear again. In a half-hour he would be back with their lunch. Sometimes it would be a piece of fruit or a scrap of meat; often it was nothing but a dry crust. But sometimes there would be one of those flat, rich cakes, sprinkled with raisins and sugar, that Tito liked so much.

At suppertime the same thing happened, although there was a little less of everything, for things were hard to snatch in the evening with the streets full of people.

But whether there was much or little, hot or cold, fresh or dry, food was always there. Tito never asked

where it came from, and Bimbo never told him. There was plenty of rain water in the hollows of soft stones; the old egg-woman at the corner sometimes gave him a cupful of strong goat's milk; in the grape season the fat winemaker let him have drippings of the mild juice. So there was no danger of going hungry or thirsty. There was plenty of everything in Pompeii if you knew where to find it—and if you had a dog like Bimbo.

As I said before, Tito was not the merriest boy in Pompeii. He could not romp with the other youngsters or play hare-and-hounds and I-spy and follow-your-master and ball-against-the-building and jackstones and kings-and-robbers with them. But that did not make him sorry for himself. If he could not see the sights that delighted the lads of Pompeii, he could hear and smell things they never noticed. When he and Bimbo went out walking, he knew just where they were going and exactly what was happening.

As they passed a handsome villa, he'd sniff and say, "Ah, Glaucus Pansa is giving a grand dinner here to-night. They're going to have three kinds of bread and roast pigling and stuffed goose and a great stew—I think bear stew—and a fig pie." And Bimbo would note that this would be a good place to visit tomorrow.

Or "H'm," Tito would murmur, half through his lips, half through his nostrils. "The wife of Marcus Lucretius is expecting her mother. She's airing all the linens; she's going to use the best clothes, the ones she's been keeping in pine needles and camphor, and she's got an extra servant cleaning the kitchen. Come, Bimbo, let's get out of the dust!"

Or, as they neared the forum, "Mm'm! What good things they have in the market place today! Dates from Africa and salt oysters from sea caves and cuttle-

fish and new honey and sweet onions and—ugh!—water-buffalo steaks. Come let's see what's what in the forum." And Bimbo, just as curious as his comrade, hurried on. Being a dog, he, too, trusted his ears and nose more than his eyes, and so the two of them entered the center of Pompeii.

The forum was the part of the town to which everybody came at least once during each day. Everything happened there. There were no private houses; all was public—the chief temples, the gold and red bazaars, the silk shops, the town hall, the booths belonging to the weavers and the jewel merchants, the wealthy woolen market. Everything gleamed brightly here; the buildings looked new. The earthquake of twelve years ago had brought down all the old structures; and since the citizens of Pompeii were ambitious to rival Naples and even Rome, they had seized the opportunity to rebuild the whole town. Hence there was scarcely a building that was older than Tito.

Tito had heard a great deal about the earthquake, although, since he was only about a year old at the time, he could hardly remember it. This particular quake had been a light one, as earthquakes go. The crude houses had been shaken down, and parts of the outworn wall had been wrecked, but there had been little loss of life. No one knew what caused these earthquakes. Records showed they had happened in the neighborhood since the beginning of time. Sailors said that it was to teach the lazy cityfolk a lesson and make them appreciate those who risked the dangers of the sea to bring them luxuries and to protect their town from invaders. The priests said that the gods took this way of showing their anger to those who refused to worship properly or failed to bring enough

sacrifices to the altars. The tradesmen said that the foreign merchants had corrupted the ground and it was no longer safe to traffic in imported goods that came from strange places and carried a curse upon them. Everyone had a different explanation, and everyone's explanation was louder and sillier than his neighbor's.

People were talking about it this afternoon as Tito and Bimbo came out of the side street into the public square. The forum was crowded. Tito's ears, as well as his nose, guided them to the place where the talk was loudest.

"I tell you," rumbled a voice which Tito recognized as that of bathmaster Rufus, "there won't be another earthquake in my lifetime or yours. There may be a tremble or two, but earthquakes, like lightning, never strike twice in the same place."

"Don't they?" asked a thin voice Tito had never heard before. It had a high, sharp ring to it, and Tito knew it as the accent of a stranger. "How about the two towns in Sicily that have been ruined three times within fifteen years by the eruptions of Mount Etna? And were they not warned? And does that column of smoke above Vesuvius mean nothing?"

"That?" Tito could hear the grunt with which one question answered another. "That's always there. We use it for our weather guide. When the smoke stands up straight, we know we'll have fair weather; when it flattens out, it's sure to be foggy; when it drifts to the east——"

"Very well, my confident friend," cut in the thin voice, which now sounded curiously flat. "We have a proverb: 'Those who will not listen to men must be taught by the gods.' I say no more. But I leave

a last warning. Remember the holy ones. Look to your temples. And when the smoke tree above Vesuvius grows to the shape of an umbrella pine, look to your lives!"

Tito could hear the air whistle as the speaker drew his toga about him, and the quick shuffle of feet told him that the stranger had gone.

"Now what," said Attilio, the cameo-cutter, "did he mean by that?"

"I wonder," grunted Rufus. "I wonder."

Tito wondered, too. And Bimbo, his head at a thoughtful angle, looked as if he were doing a heavy bit of pondering. By nightfall the argument had been forgotten. If the smoke had increased, no one saw it in the dark. Besides, it was Caesar's birthday, and the town was in a holiday mood. Tito and Bimbo were among the merry-makers, dodging the charioteers,



who shouted at them. But Tito never missed his footing. He was thankful for his keen ears and quick instinct—most thankful of all for Bimbo.

They visited the open-air theater; then went to the city walls, where the people of Pompeii watched a sham naval battle in which the city, attacked from the sea, was saved after thousands of flaming arrows had been exchanged and countless colored torches had been burned. Though the thrill of flaring ships and lighted skies was lost to Tito, the shouts and cheers excited him as much as anyone.

The next morning there were two of the beloved raisin cakes for his breakfast. Bimbo was unusually active and thumped his bit of a tail until Tito was afraid he would wear it out. Tito couldn't imagine whether Bimbo was urging him to some sort of game or was trying to tell him something. After a while he ceased to notice Bimbo. He felt drowsy. Last night's late hours had tired him. Besides, there was a heavy mist in the air—no, a thick fog rather than a mist—a fog that got into his throat and made him cough. He walked as far as the marine gate to get a breath of the sea. But even the salt air seemed smoky.

Tito went to bed before dusk, but he did not sleep well. . . . He awoke early. Or rather, he was pulled awake, Bimbo doing the pulling. The dog had dragged Tito to his feet and was urging the boy along. Where, Tito did not know. His feet stumbled uncertainly; he was still half asleep. For a while he noticed nothing except the fact that it was hard to breathe. The air was hot and heavy, so heavy that he could taste it. The air, it seemed, had turned to powder, a warm powder that stung his nostrils and burned his sightless eyes.

Then he began to hear sounds, peculiar sounds. Like animals under the earth. Hissings and groanings and muffled cries. There was no doubt of it now. The noises came from underneath. He not only heard them—he could feel them. The earth twitched; the twitching changed to an uneven shrugging of the soil. Then, as Bimbo half pulled, half coaxed him along, the ground jerked away from his feet and he was thrown against a stone fountain.

The water—hot water!—splashing in his face revived him. He got to his feet, Bimbo steadying him, helping him on again. The noises grew louder; they came closer. The cries were even more animal-like than before, but now they came from human throats. A few people began to rush by; a family or two, then a group, then, it seemed, the whole city of people. Tito, bewildered though he was, could recognize Rufus' voice as he bellowed like a water buffalo gone mad.

It was then the crashing began. First a sharp crackling, like a monstrous snapping of twigs; then an explosion that tore earth and sky. The heavens, though Tito could not see them, were shot through with continual flickerings of fire. Lightnings above were answered by thunders beneath. A house fell. Then another. By a miracle the two companions had escaped the dangerous side streets and were in a more open space. It was the forum. They rested here awhile; how long the boy did not know.

Tito had no idea of the time of day. He could feel it was black—an unnatural blackness. Something inside, perhaps the lack of breakfast and lunch, told him it was past noon. But it didn't matter. Nothing seemed to matter. He was getting drowsy,

too drowsy to walk. But walk he must. He knew it. And Bimbo knew it; the sharp tugs told him so. Nor was it a moment too soon. The sacred ground of the forum was safe no longer. It began to rock, then to pitch, then to split. As they stumbled out of the square, the earth wriggled like a caught snake, and all the columns of the Temple of Jupiter came down. It was the end of the world, or so it seemed.

To walk was not enough now. They must run. Tito, too frightened to know what to do or where to go, had lost all sense of direction. He started to go back to the inner gate; but Bimbo, straining his back to the last inch, almost pulled his clothes from him. What did the dog want? Had he gone mad?



Then suddenly he understood. Bimbo was telling him the way out. The sea gate, of course. The sea gate—and then the sea, far from falling buildings, heaving ground. He turned, Bimbo guiding him across open pits and dangerous pools of bubbling mud, away from buildings that had caught fire and were dropping their burning beams.

New dangers threatened. All Pompeii seemed to be thronging toward the marine gate, and there was the chance of being trampled to death. But the chance had to be taken. It was growing harder and harder to breathe. What air there was choked him. It was all dust now, dust and pebbles as large as beans. They fell on his head, his hands—pumice stones from the black



heart of Vesuvius! The mountain was turning itself inside out. Tito remembered what the stranger had said in the forum two days ago: "Those who will not listen to men must be taught by the gods." The people of Pompeii had refused to heed the warnings; they were being taught now, if it was not too late.

Suddenly it seemed too late for Tito. The red-hot ashes blistered his skin; the stinging vapors tore his throat. He could not go on. He staggered toward a small tree at the side of the road and fell. In a moment Bimbo was beside him. He coaxed, but there was no answer. He licked Tito's hands, his feet, his face. The boy did not stir. Then Bimbo did the thing he least wanted to do. He bit his comrade, bit him deep in the arm. With a cry of pain, Tito jumped to his feet, Bimbo after him. Tito was in despair, but Bimbo was determined. He drove the boy on, snapping at his heels, worrying his way through the crowd, barking, baring his teeth, heedless of kicks or falling stones.

Sick with hunger, half dead with fear and sulphur fumes, Tito plodded on, pursued by Bimbo. How long he never knew. At last he staggered through the marine gate and felt soft sand under him. Then Tito fainted.

Someone was dashing sea water over him. Someone was carrying him toward a boat.

"Bimbo!" he called. And then louder, "Bimbo!" But Bimbo had disappeared.

Voices jarred against each other. "Hurry! Hurry!" "To the boats!" "Can't you see the child's frightened and starving?" "He keeps calling for someone!" "Poor child, he's out of his mind." "Here, boy, take this!"

They tucked him in among them. The oarlocks

creaked; the oars splashed; the boat rode over the toppling waves. Tito was safe. But he wept continually. "Bimbo!" he wailed. "Bimbo! Bimbo!"

He could not be comforted.

Eighteen hundred years passed. Scientists were restoring the ancient city; excavators were working their way through the stones and trash that had buried the entire town. Much had already been brought to light—statues, bronze instruments, bright mosaics, household articles, even delicate paintings which had been preserved by the ashes that had taken over two thousand lives. Columns were dug up, and the forum was beginning to emerge.

It was at a place where the ruins lay deepest that the director paused.

"Come here," he called to his assistant. "I think we've discovered the remains of a building in good shape. Here are four huge millstones that were most likely turned by slaves or mules, and here is a whole wall standing, with shelves inside it. Why, it must have been a bakery! And here is a curious thing—the skeleton of a dog!"

"Amazing!" gasped his assistant. "You'd think a dog would have had sense enough to run away at that time. What is that flat thing he's holding between his teeth? It can't be a stone!"

"No. It must have come from this bakery. Do you know, it looks to me like some sort of cake, hardened with the years. And bless me, if those little black pebbles aren't raisins! A raisin cake almost two thousand years old! I wonder what made him want it at such a moment?"

"I wonder," murmured his assistant.



Lochinvar

by SIR WALTER SCOTT

OH, YOUNG Lochinvar is come out of the west;
Through all the wide Border his steed was the best;
And save his good broadsword he weapons had none;
He rode all unarmed, and he rode all alone.
So faithful in love, and so dauntless in war,
There never was knight like the young Lochinvar.

He stayed not for brake, and he stopped not for stone;
He swam the Esk river where ford there was none;
But ere he alighted at Netherby gate,
The bride had consented; the gallant came late;
For a laggard in love, and a dastard in war,
Was to wed the fair Ellen of brave Lochinvar.

So boldly he entered the Netherby hall,
 'Mong bridesmen and kinsmen and brothers and all;
 Then spoke the bride's father, his hand on his sword
 (For the poor craven bridegroom said never a word),
 "Oh, come ye in peace here, or come ye in war,
 Or to dance at our bridal, young Lord Lochinvar?"

"I long wooed your daughter; my suit you denied—
 Love swells like the Solway, but ebbs like its tide;
 And now I am come, with this lost love of mine
 To lead but one measure, drink one cup of wine.
 There are maidens in Scotland more lovely by far
 That would gladly be bride to the young Lochinvar."

The bride kissed the goblet; the knight took it up:
 He quaffed off the wine, and he threw down the cup



She looked down to blush, and she looked up to sigh,
With a smile on her lips and a tear in her eye.
He took her soft hand ere her mother could bar—
"Now tread we a measure!" said young Lochinvar.

So stately his form, and so lovely her face,
That never a hall such a galliard did grace;
While her mother did fret, and her father did fume,
And the bridegroom stood dangling his bonnet and
plume;
And the bride-maidens whispered, "'Twere better by
far
To have matched our fair cousin with young Lochinvar."

One touch to her hand, and one word in her ear,
When they reached the hall door and the charger
stood near;
So light to the croup the fair lady he swung;
So light to the saddle before her he sprung!
"She is won! we are gone, over bank, bush, and
scaur!
They'll have fleet steeds that follow!" quoth young
Lochinvar.

There was mounting 'mong Graemes of the Netherby
clan;
Forsters, Fenwicks, and Musgraves, they rode and
they ran;
There was racing and chasing on Cannobie Lea;
But the lost bride of Netherby ne'er did they see.
So daring in love, and so dauntless in war,
Have ye e'er heard of gallant like young Lochinvar?

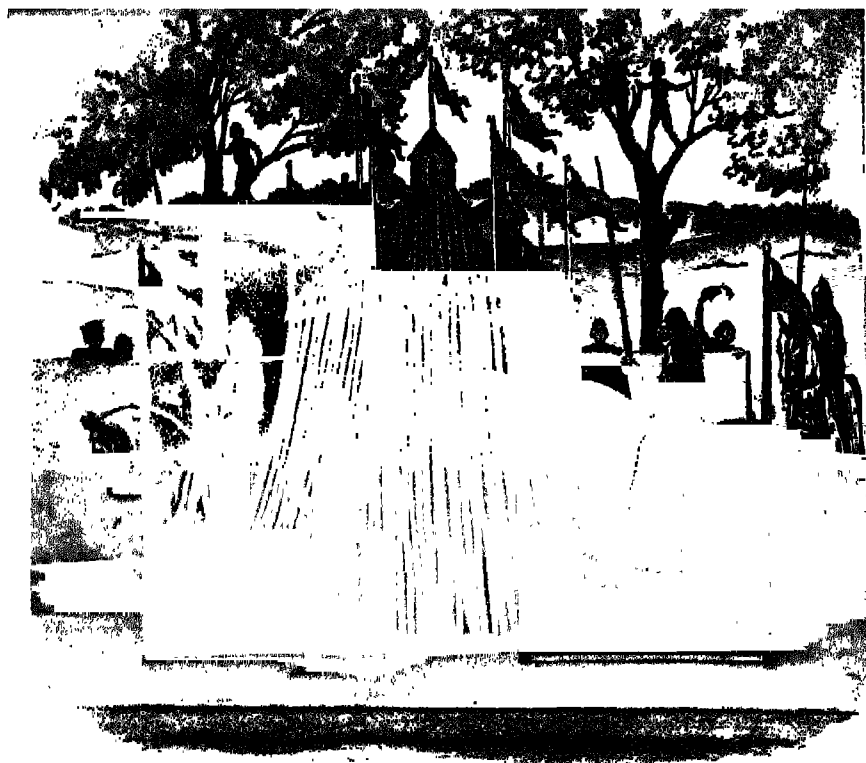
The Tournament at Ashby

by SIR WALTER SCOTT

FOUR generations after the Norman Conquest, the condition of the English nation was indeed miserable. Norman rulers, caring naught for the conquered Saxons, had abused the people at every turn. At length Richard, called the Lion-Hearted, had come to the throne in 1189. By his courage and honor, this great-great-grandson of William the Conqueror had won even Saxon loyalty.

But for nearly a year now Richard had been absent, a prisoner in the power of the cruel Duke of Austria. Meanwhile, Prince John, Richard's brother but his mortal enemy, was gathering around him a strong group of Norman supporters. To gain their favor he sponsored many a tournament so that the knights who followed him might show their skill at arms and win honor and glory. John knew that even amid their many distresses, the common people, as well as the nobles, loved a tournament. Rich and poor, young and old would go miles to see one.

Now a passage of arms, as a tournament was called, was to take place, by Prince John's order, at Ashby. The scene, a mile distant from that town, was an extensive meadow surrounded on one side by a dense forest and fringed on the other by straggling oak trees of immense size. The ground sloped gradually down on all sides to a level bottom, the central portion of which formed the lists, or the actual field of combat. The lists, enclosed by strong palisades, were a quarter of a mile in length and about half as broad.



The openings for the entry of the combatants were at the extreme northern and southern limits of the lists. To the south, on a platform, were pitched the magnificent pavilions of the five knights challengers, adorned with pennons of russet and black. Before each pavilion was suspended the shield of the knight by whom it was occupied, and beside it stood his squire. The central pavilion had been assigned to Brian de Bois-Guilbert, Prince John's friend, whose renown in all games of chivalry had led him to be chosen by the group of Norman challengers as their chief and leader. The other tents were occupied by four Norman knights: Reginald Front-de-Boeuf, Richard de Malvoisin, Hugh de Grantmesnil, and Ralph de Vipont.

At the northern entrance to the lists was a large enclosed space for such knights as might be disposed to enter the contest with these challengers.

The spaces to the right and left of the lists were in part occupied by galleries, spread with tapestry and carpets, for the convenience of the ladies and nobles. The central gallery on the eastern side, graced by a sort of throne, was designed for Prince John and his attendants. Exactly opposite, on the western side, was another gallery set aside for a train of pages and young, beautiful maidens. The center seat here was reserved for *La Royne de la Beaulté et des Amours*. But who was to represent this Queen of Beauty and Love on the present occasion no one was prepared to guess.

Directly in front of the eastern and western galleries was a narrow space for the accommodation of the yeomanry, while the common multitude arranged themselves upon banks of turf or perched on the branches of trees which surrounded the meadow.

Gradually the galleries became filled with knights and nobles, while the commoners elbowed their way to advantageous positions elsewhere. Prince John now entered, attended by a gallant equipage, himself well mounted on a gray and high-mettled horse. As he wheeled within the lists at the head of his jovial party, he suddenly stopped.

"By my honor," said he, "we have neglected to name the fair Queen of Beauty and Love."

"Your Grace," said Maurice de Bracy, one of John's closest advisers, "let the fair sovereign's throne remain unoccupied until the conqueror shall be named, and then let him choose the lady by whom it shall be filled."

Prince John agreed and a short while later gave signal to the heralds to proclaim the laws of the tournament, which were briefly as follows:

First, the five challengers were to undertake all comers.

Secondly, the Prince was to declare the victor in the first-day's tourney, who should receive as prize a war horse of exquisite beauty and matchless strength. In addition, the winner was to have the honor of naming the Queen of Beauty and Love, and she was to preside over the ceremonies on the next day.

Thirdly, there should be a general tournament on the second day in which all the knights present might take part. The Queen of Beauty and Love was then to crown the knight whom the Prince should adjudge to have borne himself best on this second day.

The heralds, having finished their proclamation, withdrew from the lists in gay and glittering procession. Meantime, the enclosed space at the northern end of the lists was completely crowded with knights desiring to prove their skill against the challengers.

At length the barriers were opened, and five knights, chosen by lot, advanced slowly into the area, a single champion riding in front and the other four following in pairs. With the eyes of the immense crowd of spectators fixed upon them, the five knights advanced to the platform upon which the tents of the challengers stood. There, separating themselves, each touched slightly, with the reverse of his lance, the shield of the antagonist to whom he wished to oppose himself. In this manner the knights indicated that they had chosen the "arms of courtesy"—that is, the contest was to be conducted with lances at whose end a piece of round flat board was fixed, so that no danger would be

encountered except from the shock of the horses and riders. The spectators were rather disappointed that the champions had not chosen to touch the shields of their opponents with the sharp end of their lances, thus indicating a combat to be waged with sharp weapons as in actual battle.

Having indicated their more peaceful purpose, the champions rode to the far ends of the lists. The challengers, coming forth from their pavilions, mounted their horses. Headed by Brian de Bois-Guilbert, they descended from the platform and each took his place at the southern end of the lists opposite the knight who had touched his shield.

At the flourish of trumpets, the contestants started out against each other at full gallop. Such was the superior dexterity or good fortune of the challengers that those opposed to Bois-Guilbert, Malvoisin, and Front-de-Boeuf rolled on the ground. The shouts of the vast multitude, together with the clangor of the trumpets, announced the triumph of the victors.

A second, a third, and a fourth party of knights took the field, and although they had varied success, the advantage remained with the challengers, not one of whom lost his seat.

After the fourth encounter, there was a considerable pause. It appeared that none of the knights was very desirous of renewing the contest. The spectators murmured discontentedly among themselves. But none shared the general feeling of dissatisfaction so keenly as did Cedric of Rotherwood. For, stout Saxon that he was, Cedric had come to the tournament in the hope of seeing the Norman knights defeated. To have witnessed the triumph of the Norman chal-

lengers in the tournament was galling to Cedric; he saw in each advantage gained by them a repeated triumph over the honor of England. His only son, Wilfred of Ivanhoe, might well have upheld Saxon valor had he been there, but, alas, this youth had long since been banished by Cedric for daring to make love to his cousin, the fair Lady Rowena. The Lady Rowena, of royal Saxon descent, lived in the household of Cedric as his ward. In the noble old Briton's heart was the hope that his beautiful ward would marry Athelstane, a descendant of King Alfred the Great, and that together they might restore Saxon rule to England. For his son Ivanhoe to aspire to her hand was therefore not to be tolerated. Yet Cedric was shrewd enough to know that even a long separation had not been successful in banishing Ivanhoe's memory from the mind of Rowena.

The pause in the tournament was still uninterrupted except by the voices of the heralds urging the knights to battle, with calls of "Love of ladies, splintering of lances! Stand forth, gallant knights; fair eyes look upon your deeds!"

At length the music of the challengers sounded forth, and it was answered by a solitary trumpet which breathed a note of defiance. All eyes were turned to see the new champion which these sounds announced, and no sooner were the barriers opened than he paced into the lists. As far as could be judged of a man sheathed in armor, the new adventurer appeared to be of medium size. The device on his shield was a young oak tree pulled up by the roots, with the Spanish word *Desdichado*, meaning "Disinherited." He was mounted on a gallant black horse, and as he passed through the lists he grace-

fully saluted the Prince and the ladies by lowering his lance. The dexterity with which he managed his steed and the youthful grace which he displayed won him the favor of the multitude, who called out words of encouragement.

The champion, moving onward, ascended the platform which led to the lists, and, to the astonishment of all present, riding straight up to the central pavilion, struck with the sharp end of his spear the shield of Brian de Bois-Guilbert until it rang. All stood amazed at his daring, but none more than the knight whom he had thus defied to mortal combat.

"Have you confessed yourself, brother," asked Bois-Guilbert, "that you peril your life so recklessly?"



"I am fitter to meet death than thou art," answered the Disinherited Knight, for by this name the stranger had recorded himself in the books of the tournament.

"Then take your place in the lists," said Bois-Guilbert, "and look your last upon the sun, for this night thou shalt sleep in paradise."

"Gramercy for thy courtesy," replied the Disinherited Knight, "and to return it, I advise thee to take a fresh horse and a new lance, for by my honor you will need both."

Having expressed himself thus confidently, he reined his horse backward down the slope which he had formerly ascended and compelled him to move backward through the lists till he reached the northern limits. Here the knight remained stationary, awaiting his foe. This feat of horsemanship again attracted the applause of the multitude.

Though incensed at his adversary for the precautions which he had recommended, Brian de Bois-Guilbert did not neglect his advice, for his honor was too nearly concerned to permit his neglecting any means which might insure victory over his presumptuous opponent. He changed his horse for a fresh one. He chose a new and tough spear. Lastly he laid aside his shield, which had received some little damage, and received another from his squires.

When the two combatants stood opposite each other at the two ends of the lists, the public excitement was strained to the highest pitch. Few believed that the encounter could end well for the Disinherited Knight, yet his courage and gallantry won the general good wishes of the spectators.

The trumpets had no sooner given the signal than

the knights sprang from their posts with the speed of lightning and closed in the center of the lists with the shock of a thunderbolt. The lances burst into shivers up to the very grasp, and it seemed at the moment that both knights had fallen, for the shock had made each horse recoil backward upon its haunches. But the riders steadied their steeds by use of the bridle and spur and retired to the limits of the lists, receiving fresh lances from their attendants.

A loud shout arose from the spectators; they knew that they were witnessing the most equal and best performed combat of the day. No sooner had the knights resumed their station than the clamor of applause was hushed into a silence so deep that it seemed the multitude were afraid even to breathe.

Now the knights a second time sprang from their stations and closed in the center of the lists with the same speed, the same dexterity, the same violence, but not the same equal fortune as before.

In this second encounter Bois-Guilbert aimed at the center of his antagonist's shield and struck it so fair and forcibly that his spear went to shivers and the Disinherited Knight reeled in his saddle. On the other hand, the champion had, in the beginning of his charge, directed the point of his lance toward Bois-Guilbert's shield, but, changing his aim almost in the moment of encounter, he addressed his lance to the helmet—a mark more difficult to hit. Fair and true he hit the Norman on the visor, where his lance's point kept hold of the bars. Yet, even at this disadvantage, Bois-Guilbert upheld his high reputation, and had not the girths of his saddle burst, he might not have been unhorsed. As it



chanced, however, saddle, horse, and man rolled on the ground under a cloud of dust.

To free himself from the stirrups and fallen steed was to Bois-Guilbert scarce the work of a moment. Stung to madness at his disgrace and at the applause that greeted his opponent, he drew his sword and waved it in defiance at the Disinherited Knight. The Knight sprang from his steed and also unleashed his sword. The marshals of the field, however, spurred their horses between the two men and reminded them that the laws of today's tournament did not permit this kind of encounter.

"We shall meet again, I trust," said Bois-Guilbert, casting an angry glance at his antagonist, "where there are none to separate us."

"If we do not," said the Disinherited Knight, "the fault shall not be mine. On foot or horseback, with spear, with ax, or with sword, I am alike ready to encounter thee."

The Disinherited Knight returned to his first station and Bois-Guilbert to his tent, where he remained for the rest of the day in an agony of despair.

The conqueror now commanded his trumpet to sound a defiance to the challengers, and he had his herald announce that he was willing to meet them in the order in which they pleased to advance against him. In turn Front-de-Boeuf, Malvoisin, and De Grantmesnil presented themselves and in turn were vanquished. The final victim of the stranger's prowess was Ralph de Vipont, who was hurled to the ground with such force that the blood gushed from his nose and mouth and he was borne senseless from the lists.

The thousands of spectators applauded long when it was announced that the marshals and the Prince had unanimously awarded the day's honors to the Disinherited Knight.

The marshals of the field were the first to offer their congratulations to the victor. Politely they requested that he allow his helmet to be unlaced or that he at least raise his visor before they led him to receive the prize of the day's tourney from Prince John. The Disinherited Knight, with knightly courtesy, declined their request, saying that for good reasons of his own he could not permit his face to be seen. The marshals pressed no further into the mystery of the Disinherited Knight, but, announcing to Prince John the conqueror's desire to remain unknown, they requested permission to bring him before His Grace in order that he might receive the reward of his valor.

Prince John's curiosity was excited by the mystery of the unknown knight, and being already displeased by the defeat of his Norman favorites, he answered haughtily to the marshals, "Bring forth this knight who appears to be discourteous as well as disinherited." Turning round to his followers, he asked, "Who think you this gallant can be, that bears himself thus proudly?"

"Your Grace," answered one of his train, Waldemar Fitzurse, "I can form no guess—unless he be one of the good lances who accompanied King Richard to Palestine and who are now straggling homeward from the Holy Land."

A whisper now arose among the Prince's attendants, but he could not make certain which of them said, "It might be the King—Richard Coeur de Lion himself!"

"God forbid!" said Prince John turning pale as death and shrinking as if blighted by a flash of lightning.

"No such danger is possible," said Waldemar Fitzurse reassuringly. "No one who remembers the gigantic limbs of your brother can think that they would fit into the armor of the Disinherited Knight, who lacks at least three inches of King Richard's height."

While he was still speaking, the marshals brought forward the Disinherited Knight to the foot of a wooden flight of steps which formed the ascent from the lists to Prince John's throne. The Prince, despite Fitzurse's assurances, was still uneasy at the thought that his brother might have suddenly arrived in his native kingdom. Nervously he delivered a short eulogy upon the knight's valor and caused to be



delivered to him the war horse assigned as the prize. All the time his eyes were staring at the knight's visor as though to pierce through it and discover whether it concealed the features of Richard the Lion-Hearted.

The Disinherited Knight spoke not a word in reply to the compliment of the Prince, which he acknowledged with a deep bow.

"Sir Disinherited Knight," continued Prince John, "since that is the only title by which we can address you, it is now your duty and privilege to name the fair lady who, as Queen of Beauty and Love, is to preside over tomorrow's festival. It is your right

to confer this crown on whom you please. Raise your lance."

The knight obeyed, and Prince John placed upon its point a coronet of green satin, having around its edge a circlet of gold.

The Disinherited Knight paced slowly forward before the galleries, carefully examining the faces of the numerous fair ladies. It was worth while to see the different conduct of the beauties who underwent his gaze. Some blushed; some assumed an air of pride; some looked straight forward; some drew back as if in alarm; some smiled, while three laughed outright.

At length the champion paused beneath the balcony in which the Lady Rowena was seated. The spectators held their breath. Not one of them was more spell-bound than Cedric the Saxon. Overjoyed at the success of the unknown knight in overthrowing the leader of the Norman challengers, Cedric hoped fervently that he would confer the honor of being Queen of Beauty and Love upon a Saxon lady.

Whether from indecision or some other motive, the champion of the day remained stationary for more than a minute while the eyes of the silent audience were fixed upon him. Then gradually and gracefully sinking the point of his lance, he deposited the coronet which it supported at the feet of the fair Rowena. The trumpets instantly sounded, while the heralds proclaimed Lady Rowena the Queen of Beauty and Love for the next day.

Prince John now prepared to leave the lists with his glittering train. As he mounted his horse and turned toward the southern entrance, the crowd of spectators began to disperse.

On the morrow the tournament was resumed with a general combat. According to the rules, Brian de Bois-Guilbert and his followers were on one side; against them were the Disinherited Knight and those who had chosen to follow him.

Long and bloody was the fray. The tide of battle seemed to flow first toward one side, then toward the other. The clang of the blows and the shouts of the combatants mixed fearfully with the sound of the trumpets, drowning the groans of those who fell. The splendid armor of the combatants became defaced with dust and blood and showed deep dents from the mighty strokes of sword and battle-ax. The gay plumage, shorn from the crests, drifted upon the breeze like snowflakes.

Between every pause of the contest was heard the voice of the heralds exclaiming, "Fight on, brave knights! Man dies, but glory lives! Fight on, brave knights, for bright eyes behold your deeds!"

All the while the eyes of the spectators endeavored to discover the leaders of each band, who, mingling in the thick of the fight, encouraged their companions by voice and example. Both Bois-Guilbert and the Disinherited Knight displayed great feats of gallantry. Repeatedly they attempted to single out each other. Such, however, was the crowd and confusion that during the early part of the conflict, their efforts to meet were unsuccessful.

But when the field became thinned by the yielding of large numbers on each side, the two leaders at length encountered hand to hand and with all the fury that mortal hatred could inspire. Bois-Guilbert's horse had bled much and gave way under the shock of the Disinherited Knight's powerful

charge. The Norman leader rolled on the field, encumbered with the stirrup, from which he was unable to draw his foot. His antagonist sprang from horseback, waved his sword over Bois-Guilbert's head, and commanded him to yield. Prince John, alarmed by his friend's dangerous situation, saved him the shame of confessing himself conquered by casting down his staff, thus indicating that the conflict was ended.

Through a field littered with broken armor and the bodies of slain and wounded horses, the marshals of the lists again conducted the victor to the foot of Prince John's throne.

"Disinherited Knight," said Prince John, "since by that title only do you consent to be known to us, we a second time award to you the honors of this tournament and announce your right to receive from the hands of the Queen of Beauty and Love the chaplet of honor which your valor has justly deserved."

While the trumpets sounded, the marshals conducted the Disinherited Knight across the lists to the foot of that throne of honor which was occupied by the Lady Rowena. On the lower step of this throne the champion was made to kneel down. Rowena, descending from her station with a graceful and dignified step, was about to place the chaplet which she held in her hand upon the helmet of the champion, when the marshals exclaimed, "It must not be thus; his head must be bare."

The knight muttered faintly a few words, but the marshals, ignoring his apparent protest, cut the fastenings of his helmet. When the helmet was removed, the well-formed and sunburned features of a young man of twenty-five were seen, his head covered with a profusion of short fair hair. His countenance

was as pale as death and marked in one or two places with streaks of blood.

Rowena had no sooner beheld him than she uttered a faint shriek, for she had recognized Ivanhoe. Trembling with the violence of sudden emotion, she placed upon the drooping head of the victor the splendid chaplet which was the reward of the day and pronounced in a clear, distinct tone these words: "I bestow on thee this chaplet, Sir Knight, as the reward of valor assigned to this day's victor."

The knight lowered his head and kissed the hand of the lovely sovereign by whom his valor had been rewarded and knelt at her feet.

Thus the famous tournament of Ashby and the mystery of the unknown knight ended together.



The Highwayman

by ALFRED NOYES

PART ONE

THE wind was a torrent of darkness among the gusty
trees;

The moon was a ghostly galleon tossed upon cloudy
seas;

The road was a ribbon of moonlight over the purple
moor;

And the highwayman came riding—

Riding—riding—

The highwayman came riding, up to the old inn door.

He'd a French cocked hat on his forehead, a bunch of
lace at his chin,

A coat of the claret velvet, and breeches of brown
doeskin;

They fitted with never a wrinkle; his boots were up
to the thigh!

And he rode with a jeweled twinkle,

His pistol butts a-twinkle,

His rapier hilt a-twinkle, under the jeweled sky.

Over the cobbles he clattered and clashed in the dark
inn yard;

And he tapped with his whip on the shutters, but all
was locked and barred;

He whistled a tune to the window, and who should be
waiting there

But the landlord's black-eyed daughter,

Bess, the landlord's daughter,

Plaiting a dark red love knot into her long black hair.

And dark in the dark old inn yard a stable-wicket
creaked

Where Tim the ostler listened; his face was white
and peaked;

His eyes were hollows of madness, his hair like moldy
hay,

But he loved the landlord's daughter,

The landlord's red-lipped daughter;

Dumb as a dog he listened, and he heard the robber say—

"One kiss, my bonny sweetheart; I'm after a prize
tonight;

But I shall be back with the yellow gold before the
morning light;

Yet, if they press me sharply, and harry me through
the day,

Then look for me by moonlight,

Watch for me by moonlight,

I'll come to thee by moonlight, though hell should
bar the way."

He rose upright in the stirrups; he scarce could reach
her hand,

But she loosened her hair i' the casement! His face
burned like a brand



As the black cascade of perfume came tumbling over
his breast;
And he kissed its waves in the moonlight
(Oh, sweet black waves in the moonlight!);
Then he tugged at his rein in the moonlight, and
galloped away to the West.

PART TWO

He did not come in the dawning; he did not come at
noon;
And out o' the tawny sunset, before the rise o' the moon,
When the road was a gypsy's ribbon, looping the purple
moor,
A redcoat troop came marching—
Marching—marching—
King George's men came marching, up to the old inn
door.

They said no word to the landlord; they drank his ale
instead;
But they gagged his daughter and bound her to the foot
of her narrow bed;
Two of them knelt at her casement, with muskets at
their side!
There was death at every window,
And hell at one dark window,
For Bess could see, through her casement, the road
that *he* would ride.

They had tied her up to attention, with many a snigger-
ing jest;
They had bound a musket beside her, with the barrel
beneath her breast!
"Now keep good watch!" and they kissed her.

She heard the dead man say:

Look for me by moonlight,

Watch for me by moonlight,

*I'll come to thee by moonlight, though hell should bar
the way!*

She twisted her hands behind her, but all the knots
held good!

She writhed her hands till her fingers were wet with
sweat or blood!

They stretched and strained in the darkness, and the
hours crawled by like years,

Till, now, on the stroke of midnight,

Cold on the stroke of midnight,

The tip of one finger touched it! The trigger at least
was hers!

The tip of one finger touched it; she strove no more
for the rest!

Up she stood, to attention, with the barrel beneath her
breast.



She would not risk their hearing; she would not strive
again;
For the road lay bare in the moonlight,
Blank and bare in the moonlight,
And the blood of her veins in the moonlight throbbed
to her love's refrain.

Tlot-tlot; tlot-tlot! Had they heard it? The horse-
hoofs ringing clear;
Tlot-tlot, tlot-tlot, in the distance! Were they deaf
that they did not hear?
Down the ribbon of moonlight, over the brow of the hill,
The highwayman came riding,
Riding—riding—
The redcoats looked to their priming! She stood up,
straight and still!

Tlot-tlot, in the frosty silence! *Tlot-tlot,* in the echoing
night!
Nearer he came and nearer! Her face was like a light!
Her eyes grew wide for a moment; she drew one last
deep breath;
Then her finger moved in the moonlight,
Her musket shattered the moonlight,
Shattered her breast in the moonlight and warned him
—with her death.

He turned; he spurred to the westward; he did not
know who stood
Bowed, with her head o'er the musket, drenched with
her own red blood!
Not till the dawn he heard it; and slowly blanched
to hear
How Bess, the landlord's daughter,

The landlord's black-eyed daughter,
Had watched for her love in the moonlight, and died
in the darkness there.

Back he spurred like a madman, shrieking a curse to
the sky,
With the white road smoking behind him, and his rapier
brandished high!
Blood-red were his spurs i' the golden noon; wine-red
was his velvet coat,
When they shot him down on the highway,
Down like a dog on the highway,
And he lay in his blood on the highway, with the bunch
of lace at his throat.

*And still of a winter's night, they say, when the wind
is in the trees,
When the moon is a ghostly galleon tossed upon cloudy
seas,
When the road is a ribbon of moonlight over the purple
moor,
A highwayman comes riding—
Riding—riding—
A highwayman comes riding, up to the old inn door.*

*Over the cobbles he clatters and clangs in the dark inn
yard;
And he taps with his whip on the shutters, but all is
locked and barred;
He whistles a tune to the window, and who should be
waiting there
But the landlord's black-eyed daughter,
Bess, the landlord's daughter,
Plaiting a dark red love knot into her long black hair.*



The Golden Cup of Kasimir

by ERIC P. KELLY

ON THE balcony of a high tower in the old Polish city of Bendzin, there stood, on a bright April afternoon, a boy and a girl. They wore the rich dress of the noble folk of that period. The boy had on a buttoned velvet coat, knickerbockers of the same material—dark and caught at the knees with silver clasps—silken hose, and soft leather sandals that curved up above the toes. The girl wore a simple tunic of white, held by a golden belt at the waist, and over it an unbuttoned short-coat, blue and silklike, with sleeves puffed at the wrists. She was bareheaded, her light yellow hair falling about her shoulders. She wore sandals of red leather on which were embroidered figures.

Below them, several hundred feet at least, the

waves of a little lake lapped softly at the moss-covered stones, for the castle rose on this side sheer from the water. In the middle of the lake, fishing quietly, as if he had no care in the world, was Stanislaus, a half-witted servant, kindly, harmless. Stretched out full length in the flat-bottomed boat, he had pulled his leather headpiece over his eyes, and in his folded hands rested the tree branch which served him as a fishing pole.

"My dear cousin Elzbieta," exclaimed the boy, suddenly, "spring is really here at last!"

They had both been silent for some time as they stood there drinking in the beauty of the scene before them. He was a boy of perhaps fourteen years, but his voice had a ring and his words a meaning that indicated maturity, in mind if not in body. Looking up to him—she was below his height and perhaps two years younger—she said, "Stefan, I thought that it would never come."

Spring had come that year like the sweet lull after a storm. The tiny plants rose from the black earth, green and hopeful. White fleecy clouds floated up from the Black Sea and down from the Baltic; and the sun's soft rays fell in gentle benediction over the world.

But what a world! No more did the peasant sing as he went about his work. No more did the great folk in the castle turn the night into day with feasting. No more did the little flat-bottomed boats ply up and down the river with cargoes of good things to eat and wear. The church bells were silent; the criers were heard no more in the street. It was as if the hand of Death lay over a once happy and prosperous land.

For the Tartar horde of Genghis Khan had overrun their vast empire in Asia and had poured into Europe. Frightful they were, the Tartars: dark, lithe, quick to move, horseback riders of the most daring skill—terrible to look at, terrible to meet; for they were merciless with their curved swords and spared not man or beast.

It was the end of the world, said some. It was the downfall of civilization, declared many others.

"Two days it has been," spoke Stefan again, "since your father and mine rode away to the defense of Czestochowa. It is strange to be here alone. But you are not afraid, Elzbietka?"

She looked at him with blue eyes in which there was not a shade of fear. It was answer enough. He clutched at the hilt of the short sword that he wore in his girdle. "Let them come!" he said. "Let them come!"

For their fathers were among those deathless spirits of Poland who feared naught when their country was at stake. Bravely the Poles had fought at Liegnitz, just one year before, when Tartars felt the strength of Polish swords. Bravely the Poles had died there by the thousand—in vain, perhaps, the world had thought; for the Tartars were victorious, and it seemed as if Europe lay open for their taking.

But at this point of the invasion, instead of pushing on into Germany and France, the Tartars had turned south. During the rest of the summer and winter they had troubled the lands in the north very little; and in those cities where the Tartars had not been, life began to flow on as it had before. So quickly do men forget.

It was so at Bendzin. Although that ancient city

lay but a few miles north of the line of invasion, it had not been touched. Stefan and Elzbietka had been together in the castle for several weeks. Their mothers had both perished in the great plague which swept the country a few years before the invasion. When Elzbietka's father had joined forces with the duke, Stefan's father, he had left the child in the castle, believing that there she would be safe.

"Are the Tartars near?" asked Elzbietka quietly.

"I do not know," Stefan said. "Perhaps we are too far to the north. Perhaps it is because we have not much gold—because there is not much to steal."

"But the Cup of Kasimir. Have they not heard of that?"

"Perhaps not," he answered. "But that reminds me that you must see it this very day. It has been hidden away lest the Tartars might come, and only yesterday was it brought out and returned to its place in the chapel. We will go down and see it."

Hand in hand they went to gaze at that wondrous piece of craftsmanship famous in all Poland—a cup of gold set about with precious stones, a marvelous thing, the finest example of the goldsmith's art. It rested in a niche in the chapel. Noiselessly they sat there in an oaken pew, Elzbietka struck dumb with wonder, Stefan flushed with pride. Through the windows of stained glass streamed the colored rays, lighting the altar, lingering upon the silver eagle above it, and striking directly at this precious, gleaming chalice of finest, purest gold.

"The inscription is in Latin," whispered Stefan. "It says, 'Blest Be the Lips that Drink from Me.' It came here as a present from the first King Kasimir when my ancestor, the first Duke of Bendzin, built



this castle. The king himself drank from it, and then the duke. So has it been through every generation, and none may rule these Bendzin lands unless he drink from this cup upon his accession."

They went out into the passage again, their eyes agleam with the glamour of the cup.

"Our fathers," asked Elzbietka, after a long silence, "must they not be even now at Czestochowa?"

"They are certainly there," Stefan answered.

Throughout the great castle a sense of security reigned. Down in the kitchen whole fowls roasted on the spits over the charcoal. There was much merrymaking, for when the master is away—well, the scullion boys will have their turn. At that very moment they were pelting each other with soot, pelting the cooks, plastering the walls, and covering each soldier of the guard with the sticky black stuff as he showed himself at the kitchen door.

"Stay!" shrieked Stas, the kitchen-master, holding his fat sides with laughter—the boys were careful not to pelt him. "Cease that nonsense and get about the kitchen business." Then, catching the nearest offender, he boxed his ears roundly. "Let that soot-box alone."

The soot-box—that was where the mischief started. It stood by the open ovens, high as a man's waist, and nearly full of the soot which was taken weekly from the chimneys. The urchins hung over the edge of the soot-box and, filling their mischievous fists, were making life miserable in the kitchen for all but Stas. He enjoyed the joke for some time, seeing that he alone was not a sufferer; but suddenly one



boy, bolder than the rest, flicked a handful of the powder into his face.

Splutter, splutter, and Stas was on the warpath. He grabbed at a luckless youth nearby and, pushing the boy aside, set the cooks and scullions to work preparing the meal.

The sun was low when the rough table was spread with smoking dishes, and the castle guards seated themselves on the long benches and began to pick out the best morsels with their short knives.

A choice meal in covered silver dishes was taken upstairs to Stefan, Elzbietka, their attendants, and the captain of the guard.

It grew dark. Torches were lighted in the narrow corridors; the high candles flamed in the great rooms. The musicians touched their lutes; while, from below, the wail of a bagpipe told of merriment in the kitchen.

But suddenly there came to the guards' ears the noise of horses galloping.

"So soon returned?" asked a guardsman, laying down his knife.

"They are riding hard," said another guard, rising quickly.

But a third soldier had risen with face white as snow in the red glare of the torches. "By heavens, that is not the tread of Polish horses! Those horses are light. The men ride light——" And at that, all were up in an instant, pale as their comrade, as a terrible scream rang out in the night.

"Tartars!" Surely that was the death cry of a watchman surprised at the drawbridge. "To arms!" and the soldiers thundered out into the courtyard, seizing up their armor as they ran.

Oh, fatal day that saw Bendzin, which had never fallen before an enemy, stripped of its most valiant men! They had thought that it would never be molested. Oh, blind confidence! For did not all men know that in Bendzin was the most precious treasure in all Poland, the Cup of King Kasimir?

To make matters worse, the guards at the gate had fallen into the same error as those in the kitchen. Never dreaming of invasion, they had let down the drawbridge in the full expectation of admitting their master and his men. But when the first of that terrible company galloped into the light of the gate, the guards saw their mistake. Horror-stricken, they vainly tried to raise the draw. Before they could do so, the horses of the Tartars were upon the bridge.

In they dashed, like a pack of swift-riding demons, and darted through the undefended gate beyond and into the court, where they battled with a few desperate soldiers who struggled to hold them from the castle.

"To the tower!" shouted the captain of the guard, but there were few men left to retreat. He managed to slip inside the entrance of the central fortified tower just as a volley of thin, deadly spears crashed against the door. Outside in the court, one could hear the cries of dying men, Tartar and Pole; for although the Poles were but a handful, they had sold their lives dearly. The Tartars rushed at the tower door with gate beams for battering rams. In a few moments the door went down, and the whole castle lay at the mercy of the invaders.

This time, however, they did not rush in. They waited until the main body of their cavalry came

up, and one grim, silent, threatening figure rode slowly through their midst.

He gave an order, and fifty men sprang into the castle corridor. He followed. They climbed the stairs unopposed, except where the guard captain and some attendants put up a vain fight on an upper landing, and entered the living quarters. Then the chief strode forward with but one man at his side.

Now when that first terrible cry of "Tartars!" came from outside, Stefan and Elzbietka were sitting at table, with the captain of the guard, himself a noble, near them. As the captain hastened away to join his men, Stefan sprang to the window on the side toward the drawbridge.

"It is true," he said, in as calm a tone as he could command; "the Tartars are already in the court and may be here at any moment. Elzbietka"—his heart was pounding like loud thunder in his ears—"Elzbietka, you can no longer stay here."

She looked up at him again, proud that she saw in him, in that moment of danger, that which made Poland great. "Stefan, I will remain with you."

He tried to think—failed; then came an inspiration. "Elzbietka, we must save the Cup of Kasimir. Run to the chapel and take it from its place; then go and tell Stas to hide you, for the Tartars will want food and so will spare the cooks." He drew her toward the door. "Go—go quickly!" he said.

The battle on the stairs was going on. Slight as the delay was, it allowed Elzbietka time to reach the chapel and hasten on to the kitchen.

Five minutes later the curtains at the entrance to the upper room were pushed aside, disclosing two men. Stefan, turning toward them, sword in hand, gazed in

astonishment; for one was a Pole, unmistakable in dress, face, and manner. The other was a Tartar, tall, stately, muscular, clad in finely finished animal skins and decorated from head to foot with gold—earrings, neck chains, bracelets, belt, scabbard—the loot of pillaged cities. He returned the boy's steady gaze with small dark eyes, set close together, the nose between them small, and the mouth and chin hidden by a black beard, coarse, and braided into perhaps a dozen strands. Stefan went cold with fear, but hot with determination.



"Boy," spoke the Pole, "tell us where in this castle may be found the Cup of Kasimir, for we are in haste and would soon depart."

Stefan continued to gaze, but did not reply.

"Answer at once," demanded the Pole. The Tartar broke in with something. "He says your life depends upon it," continued the Pole.

Stefan drew himself up proudly. "I am a Pole," he said, "son of the Duke of Bendzin. Why should I answer this man whose name I know not?"

"His name," continued the interpreter, "is Batu, prince of the forces of the Emperor Ogdai, who is the son of the great Genghis Khan."

The Tartar spoke again.

"As there is but one sun in the heavens, so shall there be but one ruler on earth," translated the interpreter, "and he must be obeyed."

Batu! A name that was dreaded in every kingdom in Europe—a cruel, bloodthirsty Tartar, second only to the Khan himself in the doing of things terrible.

"Then tell Batu that I defy him, boy that I am. Tell him that I, a Pole, refuse to obey his command; that he shall not have the Cup of Kasimir while I live. Tell him that."

"I dare not," answered the interpreter.

"Then what manner of Pole are you? Have times come to this, that Poles are brothers to Tartars and help destroy their native land? Shame upon you, for you are no Pole!"

Bold words for a boy—or for a man, indeed—but they struck home.

"I am forced," the other answered. "Batu holds my wife and children. I dare not disobey him. I care not for myself."

Stefan was silent. He was thinking that by this time Elzbietka must be safe below stairs. The Tartar Batu stared at him as if not understanding his hesitation.

The boy looked up at him squarely. There was the distance of the room between them, but the candle-light fell full upon the Tartar chieftain's face. There was something in the man's eyes that held the boy's. They were cruel, determined eyes, but they held another look that Stefan could not understand. Batu should have had an air of triumph, of victory—but somehow that was not there. Then slowly the boy began to comprehend the truth—what else could mean this haste at which the interpreter had hinted? Could it be that the Tartars were beaten and were fleeing?

Stefan turned and glanced sternly at the inter-

preter. "Tell me the truth! Has some disaster overtaken the Tartars?"

The Pole spoke quickly. "Your wits are sharp, boy. You have guessed aright. My life is nothing if Batu learns what I'm saying. Yesterday we received word of the death of Ogdai, whose lieutenant Batu is. And since Ogdai is dead, there is revolution at home, and the troops are eager to go back. The Tartars are discouraged. Batu is at this minute fleeing from Poland, but he turned aside to get the Cup of Kasimir. He has no time to lose, for the pursuers are hot upon his track."

At this moment the chief lost patience and resolved to take matters into his own hands. "*Dai—dai—dai!*" he said—using a Polish word that he had heard often and which means "Give"—advancing upon the boy threateningly. Then suddenly he drew his curved scimitar and strode across the room. There was a smile upon his lips, the sneering smile of one who crowds upon someone weaker than himself; but he had not counted upon the pride that stiffened Stefan's right hand. One blow Batu struck; it landed upon the boy's beloved sword. The blade snapped like a reed, and there remained in Stefan's hand only the jeweled hilt and a short piece of shattered steel.

Then in a flash another idea occurred to Stefan. With all his force he hurled the useless hilt and its bit of jagged blade directly into the Tartar's face. It struck fairly, laying open a swarthy cheek, and Batu staggered back. But only for a step, for, with the rage of a wild beast, he sprang at the boy. Stefan leaped back, and in an instant was upon the little balcony overlooking the lake, one foot upon the stone railing, and just as the enraged Tartar reached



forward to grasp him, the boy flung himself off into space.

The loose stones rattled as he plunged. The Tartar, stretching his body over the parapet, his muscles taut, listened for the splash that would tell of the end of the brave leap. He waited—breathless. Then came the faint noise as of someone striking the water far below, so far that even the cruel Batu shuddered. Then he rushed from the room and plunged down the stairs, calling for his men to come up and plunder. He was satisfied that no man could fall that far, even into the lake, and live.

But he had not counted on two things: the first, that he had to deal with a boy of exceptional spirit; and the second, that old Stanislaus was at that very moment in his flat-bottomed boat not twenty yards

from the place where Stefan struck the water. By the very violence of the plunge, for the lake was deep at that place, the upshoot of the lithe body took the boy to the surface beside the fisherman's boat.

Unconscious he was, and bleeding. But Stanislaus lifted him into the boat, loosened his clothing, and rubbed his limbs until he was satisfied that the boy was breathing. Then he swung about and rowed rapidly toward the farther end of the lake. Once there, he shoved the boat high among the rushes, lifted Stefan in his arms, and waded to solid ground.

Wrapping him in his own cloak, the fisherman left him in the shelter of a low-growing tree and hastened to a neighbor's cottage, where he procured coarse, homespun peasant breeches and a leather jerkin. This done, he was off for the sheltering tree.

With the return of consciousness to the boy's mind, he seemed to hear an imperative command—"To Czes-tochowa!" He murmured it to himself as the blood leaped out from his heart and warmed his cold limbs. "To Czes-tochowa!" he repeated as Stanislaus appeared with the rough garments. "Fetch us a cart and a horse, Stanislaus, for we must hasten to Czes-tochowa. The Tartars are in flight and will soon be gone."

By daybreak Stefan and Stanislaus were far away from Bendzin, jolting over the roads in a rough peasant cart. They drove on and on until, late in the afternoon, they saw a company of Polish cavalry coming toward them."

"See, Stanislaus!" Stefan rose from his seat and waved to the soldiers. "See! the White Eagle!—they are Poles! Perhaps we shall yet be in time."

They came alongside. The boy leaped from the cart. A tall stately rider in full armor, with a helmet

surmounted by a red plume, leaned down from his horse, wondering what peasant boy might be rushing toward him, shouting and waving his hands in such fashion.

"Father! Father; the Tartars are at Bendzin! Stanislaus rescued me from the lake, but Elzbietka and the Cup of Kasimir are in the castle!" In a moment Stefan was raised to the saddle.

Then there went up a great cry through all that throng: "Tartars—the Tartars are at Bendzin! Forward for Poland!"

The hoofs beat the ground like flails upon wheat. And messengers, circling on steeds that foamed at the jaws, brought up behind them troop after troop of Poland's finest soldiers. For the threatened attack upon Czestochowa had been but idle rumor or perhaps a tale circulated by the Tartars themselves in order to empty Bendzin Castle, where lay the jewel that Batu desired—the golden Cup of Kasimir.

As they rode on, Stefan poured out his news: that Ogdai was dead, and that the Tartars were discouraged and in flight. Yet, no matter how much their spirits were lightened at that news, there was still a pressing fear among the Poles, and a terrible anxiety in the mind of Elzbietka's father, hastening along silently beside them.

Finally Bendzin came in sight, though dimly, for it was growing dark. With a shout, the horsemen dashed down upon the fortress. As Elzbietka's father led them on over the still-open drawbridge, there was no sign of life in the castle yard beyond. There was no smoke from the chimneys, and there was the silence of death.

They looked about in wonder. "The Tartars are gone!" shouted a noble.

True it was, they were gone, and in swift flight. They had barely had time to pillage the castle and kill the inhabitants and then dash again on their way.

These things were whispered from mouth to mouth as Stefan, his father, and Elzbietka's father darted into the kitchen. It was in darkness, but someone came with a torch. What a sight! There, heaped about with Tartar bodies, lay Stas, the valiant cook, his great kitchen knife clasped in his right hand. Everything had been rifled. The invaders had evidently been hunting desperately for something. And that something Stefan knew to be the golden Cup of Kasimir. The Tartars had not found it in the chapel, then.

Elzbietka's father, at the sight of the loyal Stas lying slain, abandoned his last, lingering hope. He fell upon his knees beside the faithful servant. The duke, Stefan, and every man did likewise, and from the eyes of all, tears started and ran unchecked down the rough cheeks.

More soldiers crowded in silently. Suddenly one of them made an exclamation which caused all to lay hands upon their swords as they looked in the direction he was pointing. The hair rose upon their heads at the strangeness of the apparition they saw.

For out of a huge box by the side of the ovens emerged a figure, hideously black in the light cast by the flaring



torch. It was alive, struggling, gasping, trying to speak, but uttering only shrill cries. For a moment it hovered on the box edge, then pitched forward on the floor—an imp, something from the supernatural world. But as it fell, a mass of black dropped from its hands and made a clang like metal as it struck.

In an instant the nearest soldier had caught up the object, and as he brushed the black away, a light from the torch fell upon it and transformed it into a dazzling brilliancy.

“A miracle!” shouted the soldier; “a miracle!” And Stefan, plunging forward, caught it up. Of all the marvels since the beginning of time, of all wonders since the creation of earth—it was the Cup of Kasimir!

But Stefan held it only for an instant. He was down upon the floor brushing away the soot from the face of the imp. It spoke, *she* spoke; for it was Elzbietka, who had hidden the cup from the Tartars in the kitchen soot-box—the one place they did not think it worth while to search. She was grimy, half choked, not much harmed, though much frightened. She had seized the Cup the preceding night; she had reached the kitchen, where Stas, after concealing her, had died in her defense. She had spent nearly twenty hours in the cramped, stuffy space, raising her head now and again from the box for a breath of air.

Then her father had her in his arms, and in spite of the soot which fell from her clothing in great flakes, he carried her up the stairs amid the wildest shouting that ever rang through the castle of Bendzin—shouting that made every rafter ring with echoes, like the dome of the sky when thunder peals.

Living in Other Lands





Hosi the Lion

by LOUISE STINETORF

THE Scout trip had started just like any of a hundred others that Hans had taken in company with his friends—boys whose families, like his, were members of a Dutch settlement in Northern Rhodesia. But it had ended very differently from any other trip.

The troop had met at the usual time and place—nine o'clock on the porch of his dad's store—where everyone else congregated, too, on a Saturday morning to spend a half-hour or so brushing up on the past week's gossip from village to veld.

A half-hour later the boys were on the march, canteens full of water and blanket rolls strapped to their backs. Hans had looked forward to this particular trip. He was going to study botany when he completed work at the local secondary school and passed on to the university at the capital of Northern Rhodesia, and he wanted to find out as much as he could about the plants in the Zulu territory where the troop planned to camp for a few days.

There was no clearly defined boundary marking the beginning of the Zulu Reserve, but on the afternoon of the second day, Hans noticed that the patches of karroo bushes they passed were larger and more frequent, and that the groves of thorns were smaller and thinner. He knew, from tales he had heard peddlers and others tell in his father's store, that they were nearing the spot where the Zambesi River widened into Lake Lukona, immediately below the three-mouthed confluence of the Luena. Up there, on the islands between the Luena's three mouths, he had heard there were river jungles and there might be strange plants, species still unclassified.

By midafternoon the waters of Lake Lukona shimmered to their left. That evening Hans helped pitch camp on one of its small bays. Around the fire, camp duties were assigned and hikes planned. Because they were good marksmen, Hans and two companions were to go north the next morning to shoot guinea fowl and some wing-spurred geese, if they could find any, for the camp larder.

Dawn brought banks of dark gray clouds on the horizon—clouds which were all the more ominous at the end of a Rhodesian dry season. But appetite does not wait on fair weather, even in Africa; so Hans, Pytor, and Otto, guns over their shoulders, started north.

There was game—everything from gazelles, so tiny they had to make great flying leaps above even the shortest bushes in order to see where they were going, to three huge buffalo. But all the animals were restless and either already in flight or too far away for successful stalking on a day of vagrant, changeable breezes.

There were no guinea fowl or geese in their usual haunts, and the boys tramped steadily northward with no luck at all. At noon they built a small fire and roasted a half-dozen or so small birds which looked like English plovers.

They realized uneasily that they must turn back empty-handed or go on in the hope of finding game. But going on meant having to camp overnight on the veld with no more protection than a flimsy lean-to constructed hastily of whatever material chanced to be at hand. Each boy knew the relative dangers to be run. There was always the possibility of stumbling on an old buffalo bull, expelled from the herd and exceptionally vicious from loneliness and old age. They might see a leopard, but this they need not fear unless it were a female with young. There were always hyenas—irritating but, under any usual circumstances, not dangerous. They might, however—possibly one chance in about fifty—come across a pack of wild dogs. If



the animals had just made a kill, again there would be no danger. If, on the other hand, they should be hungry—the three boys looked at each other silently. Still, behind them in camp were a troop of hungry boys, and before them surely there was game.

Hans and Pytor covered over the coals of their fire with loose earth, while Otto took the lock of his gun apart, wiped imaginary dust from its various fixtures, and put it back together again. Then the first two headed north, and Otto started back to camp to explain the delay of Hans and Pytor.

Early in the afternoon things began to happen, and fast. First, Hans and Pytor picked up the trail of a small party of Zulu herdsmen. At first Hans simply took it for granted that they were moving their cattle to fresh pasturage. Then he noticed signs of haste. Articles dropped and not picked up—such as a Zulu man's beloved knobkerrie or an undamaged calabash with chunks of mealie mush sticking to its sides. Even a black-and-white-bead knee bracelet—so there were women in the group! And there were no big flat depressions in the dust where the precious cattle of the Zulus had lain to rest.

Hans and Pytor stared at each other in dismay. The uneasiness they had felt all morning was not without cause! Only real danger ever forces a Zulu man to hurry his pampered cows, and a Zulu woman who deserts good cooking pots or personal finery is in open flight. The two boys scanned the horizon. The black cloud, which had been to the west in the forenoon, was now directly behind them, and it was blacker and more jagged in the sky.

Hans held out his hand, and Pytor stared at it like one hypnotized. Fine flakes, like snow—but

coal black—were beginning to drop from the sky. Behind them, between them and camp, the veld was on fire.

"Thank goodness it's karroo bushes instead of elephant grass!" Pytor exclaimed.

Had the veld been covered with elephant grass, flimsy and dry as tinder, the flames would have traveled with the speed of the wind. The karroo bushes would burn more slowly—but much longer, unless there was rain.

Had Otto been able to reach camp before the sheet of flame blanketed the plain in between? If so, he was safe. If not—

"We'll have to mark the trail for him!" remarked Hans as much to himself as to Pytor. "He'll overtake us in a little while if he has had to turn back."

"And us?" Pytor asked.

"We ought not to be far from the mouth of the Luena," Hans replied.

"Is the Luena big enough?" Pytor asked, meaning was the river too wide for the fire to leap.

"Yes," Hans answered, "and not only that; it joins the Zambesi with three mouths, forming two islands."

Pytor heaved a sigh of relief, but asked still another question—"Crocs?"—meaning: Are there crocodiles in it?

Hans merely jerked his head a fraction of an inch in the briefest of nods. Yes!

The two boys struck north, not running, but at a pace that was more dogtrot than walking. And then they found M'Engli. He was potbellied and tearful, a Zulu man-child of possibly five or six years. His fond mother had dressed his hair in a fanciful imitation of the crowning "ring" affected by warriors who



had "wet their spears" in an enemy's blood in days long gone by—before the coming of the British, who made laws forbidding such normal conduct to a young Zulu.

"They *were* traveling fast!" Pytor said with a whistle of surprise, and looked back at the cloud which rolled ever higher and stormier. He did not need to hold out a hand now to catch stray flakes of soot. Instead he knotted his kerchief into a triangle and pulled it over his nose. Hans did the same and then swung the whimpering M'Engli over his shoulder.

"He'll slow us up awfully," Pytor remarked needlessly, and could not refrain from another glance backward.

"Well, we can't leave him here," was Hans' simple rejoinder.

The minutes seemed like hours, and the miles were the longest the boys had ever trudged. M'Engli, too,

seemed to weigh as much as two or three boys his size. It was a relief when he fell asleep and could be slung over the shoulder like a bag of meal.

Finally, in front of them a rim of green appeared and took the shape of a band of trees lining the Luena. By the time the boys stood on the banks of the stream, the horizon behind them was edged with a thin band of red.

M'Engli awoke and announced in no uncertain terms that he was hungry. As a Zulu man-child he expected food to be brought to him by some woman, and immediately. But he had awakened to a womanless world—to a smaller world than he had ever known.

It was after the branches had been trimmed from a half-dozen saplings, and while he was pulling up reeds to weave back and forth, binding them together into a crude raft, that Pytor scratched his leg. At first the wound seemed nothing, but before the raft was finished he did not need Hans to tell him that he had stumbled onto a poisoned dart set among the reeds for small animals that might come to the river to drink. The dart was old, the boys knew, because there were no longer traces of a trail. If the poison had not been weakened by age—well, Hans and M'Engli would have been alone on the banks of the Luena long before Pytor had discovered that his wound was not just a simple grass cut.

As it was, his leg swelled painfully and became increasingly difficult to move. Hans had the raft to finish alone. He worked with feverish haste, for the band of red on the horizon behind him was jagged and rippled on the top now, as though it were alive.

The raft finished and launched, Hans cut a slender sapling and trimmed it clean; he tied M'Engli onto the

middle of the raft so that no sudden plunge on his part might capsize them, and half carrying the dazed Pytor aboard, he shoved off. Poling the crude craft toward the other shore was hard work, and night shadows were darkening under the trees when he put all his strength into a last final shove on his pole and jammed the raft well up on a sand bar.

Suddenly Hans heard a noisy splash. He turned in time to see a widening streak of angular ripples marking the wake of a crocodile.

He looked back across the river and wondered bitterly if the death which snapped and crackled on that bank were any more sure than the fate which now awaited them. If only Pytor were able to walk or help with M'Engli, Hans thought, he could leave them and go get fuel for a fire. With a fire they would be safe for the night. But what would happen to his two comrades if he left them alone? Yet what would happen to them if he did *not* build a fire? He wished M'Engli would shut up; he couldn't think with that infernal crying. Hans took a few tentative steps forward.

Suddenly M'Engli was no longer bawling.

Hans whirled about, with dumb terror clutching at his heart—and almost bumped into a Zulu who seemed to tower above him like a giant. But no, it was M'Engli, seated on the man's shoulder, contentedly sucking a joint of wild sugar cane, who gave the towering effect.

"I—I see you!" Hans stammered the formal greeting of the Zulus, forgetting in his overwhelming relief that Zulu etiquette, perhaps the strictest in the world, demanded that he should remain silent until recognized by the older man. Hans noticed that his hair was iron-gray.

"I see you!" the Zulu remarked at length, as calmly as though Hans had never spoken.

Hans counted up to sixty slowly under his breath, so that he would not answer with improper haste, and murmured, "Yes."

The Zulu pointed to Pytor, and Hans showed him the swollen and discolored leg. The man handed M'Engli over to Hans, swung Pytor across his shoulder, turned, and without seeming aware of his burden trotted off under the trees. Hans followed, and it was not long before he was squatting near a fire watching an old woman lay hot compresses of strange herbs on Pytor's leg. Like a very hungry child, Hans devoured a calabash of hot stew, and later, wondered what it was he ate that night. Dog? Crocodile? Python? Or just good, familiar goat?

When Hans awoke the next morning, the sky was gray, but the sun rose clear and bright as usual. The fire had wasted its fury on the lush growth lining the riverbanks and had quenched its last sparks in the sluggish waters of the Luena. The air was heavy with the smell of fire and ash, but that afternoon the rain came, and Pytor, except for a sore leg, was his usual cheerful self again.

And that afternoon Sa-M'Engli, the grandfather of M'Engli, led Hans down a jungle path to a fetish house such as few white men ever see. There Zulu men bow down and ask the spirits of their ancestors for protection. There, before the tiny hut, Sa-M'Engli cut the throat of a chicken he had carried by its legs and the tips of its wings, and drained the blood into a calabash. Then, after a courteous pause for the ancestors to refresh themselves on the food provided, he told them Hans' story: how the Dutch boy had



saved his comrade's life, and how he had rescued from certain horrible death a Zulu man-child whose mother—fleeing from the red demon of the veld and burdened with the added cares of a newborn child—had left him behind.

"Is not such a one a warrior with a Zulu heart?" the old man asked so suddenly and earnestly that Hans found himself staring into the fetish hut and listening intently as though he expected an answer. It came, suddenly, unexpectedly, but not in words. Sa-M'Engli dipped his cupped fingers into the calabash and flung a spray of blood into Hans' face—for all the world like a woman sprinkling clothes.

"We will take you back to your people—but you are now one of us, too! What they call you in the white

man's kraal, out there on the veld, is of no importance. Among us you will always be Hosi the Lion—for you have the heart, the will, the courage of the king of beasts. I see you, Hosi!”

And Hans—or Hosi, the Zulu Lion with a white skin and Dutch accent—counted up to sixty slowly under his breath before he answered calmly, “Yes.”

That had been days ago, and already the trip seemed like a fantastic dream to Hans. Sa-M’Engli had kept his promise. Young herdsman of the little band of Zulus had formed a rude but comfortable hammock of a cowhide tanned to velvet softness, and had carried Pytor back to camp. A whole and healthy Otto—who had trailed the boys to the Zulu camp—had stridden beside Pytor’s hammock and conversed with the young Zulu hammock bearers in a strange mixture of South African Dutch and native dialects which no one—including himself—understood at times.

The Scoutmaster, seeing the blood stains in spots on Hans’ shirt, had taken him aside and questioned him sharply. Hans didn’t feel much like a lion, he had said, and he preferred that folks keep right on calling him Hans as usual; but—well—he had to tell the Scoutmaster. And after all, it was quite something to remember. And Sa-M’Engli? He was a grand old fellow. Hosi the Lion could not help hoping that they would meet again sometime. The trip hadn’t netted him any botanical specimens, but maybe he had got something better out of it!



African Dance

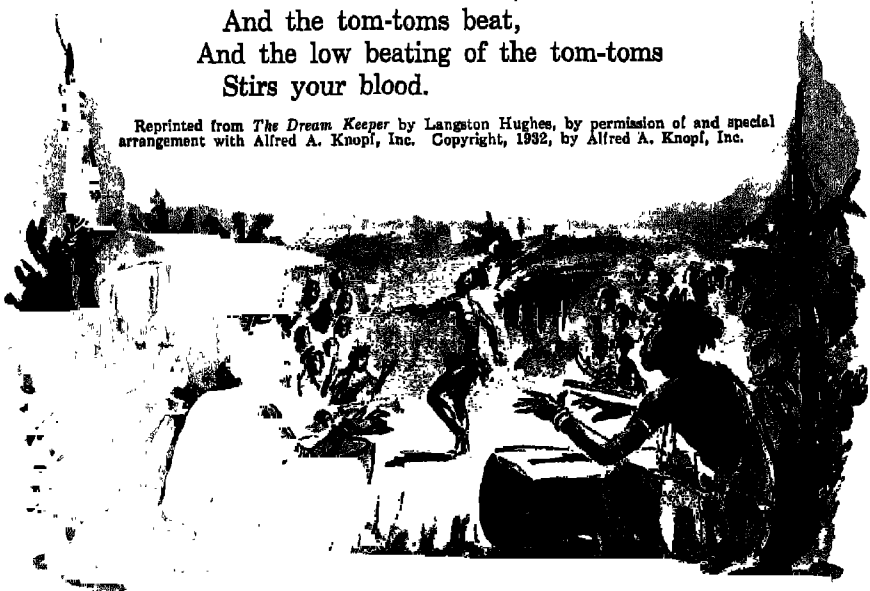
by LANGSTON HUGHES

THE low beating of the tom-toms,
The slow beating of the tom-toms,
Low slow
Slow low—
Stirs your blood.

Dance!

A night-veiled girl
Whirls softly into a
Circle of light.
Whirls softly slowly,
Like a wisp of smoke around the fire—
And the tom-toms beat,
And the tom-toms beat,
And the low beating of the tom-toms
Stirs your blood.

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Planes Fly East

by MARGARET ALISON JOHANSEN

AN AIRPLANE roared out of the west and zoomed over the upland pasture like a gigantic, angry wasp. In terror the sheep scattered, plunging wildly over the rocky slope. A wobbly-legged lamb tumbled into a ditch and began bleating piteously.

Running after the sheep, old Bardi shook his fist at the disappearing airship. "You Britisher—you American," he screeched, "coming where you're not wanted, scaring the wits out of poor, innocent beasts."

"I'll help get them together, Bardi," cried Ragna Egvynsdottir to the old shepherd.

"I'll help, too." Helga pranced after her sister. "Silly old ewes, come on back and eat, and sky-man won't hurt you. Ei-ee, Father, head them off on that side."

But Farmer Egvynd Olafsson stood glowering after the far speck in the blue. Foreigners, pouring into Iceland in troopships, flying over Iceland as if it were their own, ignorant and scornful of the old ways, bringing their own strange ways with them.

It took some time to get the flock back into a huddle so that Farmer Egvynd and Bardi could count them, could estimate the pounds of wool to be cut next week. Fanning themselves with leaves, the two girls perched on a rock to rest.

Ragna's eyes wandered over the upland meadow green with early summer. Twisting her head one way, she could see the rocky ridge beyond the pasture, gray volcanic rocks rising tall and sharp, a grim barrier that had effectively isolated their little world until airplanes took to skimming over it. Twisting herself the other way, she could look down into a narrow valley, look down upon the home farm, Gamalstaddur, upon the sod roofs, the enclosed square of yard.

Egvynd Olafsson of Gamalstaddur was well-to-do, as farmers reckon in Iceland. He had sheep and cows; he had fields and pasture land. He was progressive, too, a member of the Farmers' Coöperative in the city of Reykjavik, and through it got good prices for his wool and eider down and butter. His wife had silk for Sabbath Day, his daughters had hats and jackets and shoes from the best town shops, and he had new boots and a new topcoat when he so desired.

But for all this progressiveness he loved the old things, too. The house where he'd been born, where his father'd been born . . . no, he'd not tear it down and build a new one of concrete and tile. He loved every stone in the mossy wall, every ell of roof-sod

that under spring sun burst into leaf, turning the row of roofs into grassy barrows. As in the ancient days, every room was a separate house, or rather, every room with its loft above was a separate house, all standing side by side, with gable end to the yard, and narrow connecting passages through thick stone walls.

"I see Mama." Helga peered into the valley, too. "She's just come out of the living house. And there's Little Brother playing with his puppy. And there's Old Veiga shaking her broom and saying something to Mama. Oh, I can see the color of Veiga's gray hair, and the gilt button on her black cap. Isn't it funny to see so plainly and not be able to hear what she's saying?"

Ragna looked and looked, as if she'd never get tired of looking. She wanted to impress the homely picture on her mind's eye, so that she could recall it at will and see it all again. This fall she'd be going down to Reykjavik to the Free School preparatory to the University, and there'd be plenty of times when she'd be homesick and need such remembrances to cheer her. At least, the family had been planning a long time for her to attend the school. Now that she had passed the competitive examination, all she was waiting for was for her father to set the day on which they would ride down to Reykjavik and make arrangements about her room and classes.

Near by a little stream splashed over some rocks and widened into a clear, still pool. Ragna bent to drink, and her sister knelt beside her.

"Wait; it's a looking glass. Don't break it."

The water mirror gave back two rosy faces, two pairs of deep-blue eyes, hair the color of honey and

fine as silk, a smooth braid dangling over each left shoulder. Blue pull-over sweater . . . red sweater.

"When you go away, who will look into the water with me?" There was a catch in Helga's voice.

"Old Bardi will be pleased to look with you," the other teased, "old Bardi Goatbeard." She caught the curling end of her plait and held it to her chin like a goatee.

"I won't have old Goatbeard!" Merrily Helga splashed the pool to break the reflection.

"You shall come to school to visit," Ragna comforted. "I'll take you to classes with me. We'll walk on the campus with the other girls. We'll walk through the town and see the ships in the harbor."

"Neighbor Arngrim told Father the streets were full of Americans. We'll pretend we don't see them." Helga's little snub nose stuck up haughtily.

The afternoon was ending when Egvynd Olafsson rode his big gray mare down the steep path toward home, followed by his daughters on their ponies.

"Bannocks and butter, bannocks and butter. That's what I want for supper," sang Helga.

Ragna patted her pony's neck and smoothed the thick mane. Before long, brown Brune would be carrying her down to Iceland's capital city. Another pony would bear her trunk and boxes. Father would ride his mare. Some farmers had automobiles and trucks, and there were hundreds of automobiles in Reykjavik. But up here among the lava peaks and deep, swift streams, road building was so difficult that most people traveled as their ancestors had traveled through the centuries, by foot or on horseback.

When they rode into the yard, a delicious smell was wafted to them from the kitchen house.

"Mama's got the coffee on," exulted Helga, slipping hurriedly from her saddle.

Egvynd Olafsson lifted Ragna from her horse and kissed her before he set her on her feet.

"There is something that I must say to you," he said gravely. "Now I must stable the ponies. Later we will talk."

The living house with its wood-paneled walls and low, beamed ceiling seemed dark after the golden sunshine on the hills.

The girls passed through the connecting passage to the kitchen house where red coals glowed on the stone hearth and the copper kettle bubbled merrily. Old Veiga, the cook, with a handkerchief tied over her black cap to keep off the ashes, was down on her knees, head thrust close to the coals, blowing up a flame. Madame Tordis, the girls' mother, her blue wool dress the color of her eyes, stood by the table, transferring butter from a crock to a flowered dish.



"We're starved. Sigga has twin lambs, brown-spotted. Father says they are to be ours. What have you got for us to eat?" The sisters gave their mother bear hugs, then dived for the sweet-chocolate box.

Munching the candy, Ragna pondered what her father had to say to her. It must be about going to the school. But why so solemn and long-faced? He'd been so proud and gay when she'd passed the examination.

The supper hour was a tantalizing wait. Ragna covertly watched her father. He laughed a lot, but he didn't sound merry. And he avoided meeting her eyes. Suddenly she began to feel afraid. Something was wrong, but what?

The two girls cleared the table. Then Madame Tordis kept Helga and small Olaf in the kitchen with her while she and old Veiga planned the next day's tasks. With dragging footsteps Ragna went back to her father.

Egvynd Olafsson was plaiting a horsehair rope, his work-roughened fingers moving expertly and swiftly. With a nod he motioned Ragna to a seat on the bench beside him.

"You have something to say to me, Father?"

"Aye, something to say." He spoke heavily. "Daughter, you are counting on going to the school this autumn. I am sorry . . . I . . . I have decided it is best for you not to go."

She had been halfway expecting this; still the blow was sharp. "Is it money, my Father? Will the wool sales fall short?" She hated the tremble in her voice. "I have the pair of gold bracelets Grandmother gave me. Maybe they would be enough to pay for board and books."

"It is not money."

What was it then? Her heart was crying out to know, but she kept silent as she watched the blunt fingers fly through the shining strands.

Violently Egvynd Olafsson threw the unfinished rope on the floor. Springing up, he took a quick turn about the room. "It's the foreigners," he burst out. "First the British. Now this American army of occupation. Maybe we ought to be grateful for protection. I certainly don't want to be annexed to any conquering Master-State. But I'm not grateful. I want to be let alone. I want my country let alone."

The girl stared. What had all this to do with her?

He went on in a rush of words. "I am Icelandic. So is your mother. We want you to be Icelandic, too. We want no smattering of foreign ideas making you dissatisfied with Icelandic ways. These Americans—Neighbor Arngrim has seen them in Reykjavik, has talked with them. They laugh at our homes, call our sod and stone houses *dirt* houses. They make fun of our names because we don't title ourselves Mr. Black and Mrs. White, or call the whole family Black or White as they do. They'd laugh at your being named Ragna Egvyndsdottir while your brother is called Olaf Egvyndsson. I won't have my children laughed at."

"But, Father," she protested, "you haven't been to Reykjavik lately; you haven't seen these Americans. Perhaps Neighbor Arngrim is mistaken. He may have talked to the wrong sort of Americans."

"They are all alike—money-proud, bragging of their fast automobiles and easy living. I'll not go seeking talk with them." Abruptly he leaned over and kissed her cheek. "I keep you here because I love you, Daughter. Someday, when this noisy horde is gone from our land, then you shall go to the school."

She could hear Mama and Helga laughing in the kitchen; hear little redheaded Olaf's piping voice joining in. They were having a merry time, but Ragna didn't want to be with them just now. She slipped up to her loft bedroom and lay on her bed. Through the tiny four-paned window set in a sloping roof, she could see the stars. She didn't cry. But she ached all over with disappointment. So long she had counted on this and had worked so hard at her studies. And now she was to be kept away from the school.

As she lay there staring at the stars, so far away, so unconcerned with her troubles, a tear trickled out of her eye. She brushed it off before it could run down on her cheek. Her father was doing this because he loved her. She was a real Iclander. No, no indeed, she wanted no dealings with foreigners who laughed at her country because it was poor and loved its old ways. Well might Iceland love its old ways, be proud of its long and honorable history, its tradition of learning, and its magnificent old sagas. She could understand her father's feelings. These Americans doubtless meant well, but Iceland must go forward in its own way.

Weeks passed by. Summer lay like a green cloak on the meadows, on the rolling uplands.

More and more airplanes skimmed over Gamalstaddur. Ragna found herself listening for their roar—first a faint humming in the west, then a thunder overhead, then the roar dying away as the winged monsters dropped down to Lake Thinkvellir and the American airport. She tried to picture to herself these foreign birdmen. Her father had called them "money-proud." Of course it was silly, but instead of the Army olive-drab uniform, she saw them clothed in suits made of

dollar bills, with big silver dollars for buttons. And they held their noses as they flew over Gamalstaddur. "Dirt houses," they sneered, "dirty houses."

Fighters for Britain, bombers for Britain. Planes flying east—always east.

Ragna smiled thinly. In the old days it had been ships sailing west: Iceland's Erik the Red discovering Greenland; Erik's son, Leif the Lucky, discovering Vinland, the Good. A thousand years later, and that same Vinland, now called America, was flying planes east—and taking over Iceland as a stepping stone.

One morning after the dew was off the grass, Madame Tordis sent her daughters to gather herbs for her medicine chest. Nowadays there were plenty of doctors in Iceland; indeed, the district doctor, paid in part by the state, lived not so many miles from Gamalstaddur. But in the old times, when doctors were scarce, housewives bore the responsibility of dosing and of setting bones, and the old habits were not easily laid aside. Madame Tordis had her medical lore from her mother and her grandmother, and she was proud of her skill.

"Look especially for meadowsweet root," she called after them. "The juice of the crushed root is good to drop into dim eyes, and our Veiga has been complaining of her eyes of late. And don't forget fennel and wormwood and mugwort."

Each girl carried a willow basket on her arm and a slab of chocolate hidden in her pocket. As they walked, Ragna's heart lightened; the task became a holiday jaunt.

"A tuft of shepherd's-purse for nosebleed. I'll need a whole basketful of that for Little Brother," laughed Helga.

Picking leaves, digging roots with a broken knife

blade, chatting gaily all the while, they worked their way up into the hills. "Whortleberries," cried Ragna, popping a luscious ripe fruit into her mouth. "Here we stop and feast."

As eager fingers stripped the bush, a faint, pulsing beat sounded on the western horizon.

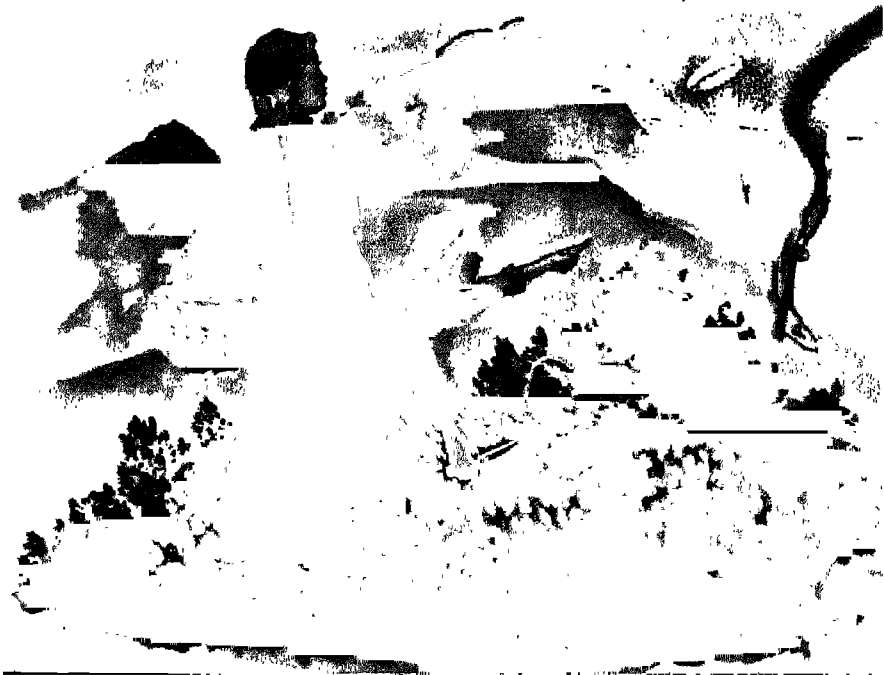
"American plane," snorted Helga.

The roar came nearer. A tiny black speck grew into a long, narrow body between two extended wings.

"Listen. That queer sound, a knock-knocking——" Ragna shaded her eyes with her hand, peered into the sky. "The ship's not going straight. It's zigzagging—it's—oh—it's falling!"

The girls stared up with terror-glazed eyes. The big plane wheeled slowly like a wounded raven. Then the nose thrust down and it began to spin . . . faster . . . faster . . .

"A parachute! He's jumped!" screamed Helga.



A roar—a crash—the airplane struck the lava shelf. Like a wind-blown white blossom the parachute drifted down and dropped its burden behind the rocky ridge.

"Run fetch Father! Fetch help quickly." Ragna gave her sister a shove. "Run—I'll go hunt for the American."

Ragna was panting by the time she left the grasslands behind. The lava ridge was rough going . . . the volcanic rock was sharp-edged. Twice she slid into gullies . . . got her head bumped and her hands scratched. But at last she topped the ridge and could look down to the other side. Where? Yes, there it was—that splotch of white against the gray stone.

But the white parachute was so motionless. Suppose the flier were dead?

Fearfully she approached, dragged at the heavy silk, and pulled it back from what lay beneath.

A sprawling body in olive-drab uniform—a tall man, bloody about the head—blood oozing through thick black hair.

As she put out a hand to touch the man, to assure herself that he yet lived, a pair of black eyes opened and blinked dazedly.

"Lieutenant Sam Smith reporting——"

"Don't try to get up," she cautioned in her best schoolbook English. "Your head hit the lava rock. You are hurt. Father is coming. Just keep quiet."

The wait was long before Egvynd Olafsson came. But when he did, it was with Brune, Ragna's pony, and old Bardi.

Lieutenant Smith roused himself. "Hate to trouble you," he apologized. "Just banged my head."

"And broke an arm, and no telling what you did to your insides." Farmer Egvynd was grim.

The American was put on Brune, Bardi walking beside Smith and holding him on. Egvynd Olafsson led the horse by the halter and Ragna walked behind.

The little procession moved forward slowly, down a deep path between great gray stones, across the pasture, and through the valley to the courtyard.

Madame Tordis met them at the living-house door. "Take him up to the loft bed," she directed. "Thank goodness I've herb drinks and poultices and can make him comfortable while Bardi rides for the doctor."

By nightfall Dr. Sigberg came, approved Madame Tordis' treatments, and put the arm in a plaster cast.

"Next time I'm in the village I'll telephone the American camp," he told the stranger. "But there's no hurry; you mustn't move for several days."

Lieutenant Sam Smith, of Texas, proved a most engaging patient. The first day he slept; after that he was amazingly cheerful and chatty. Despite their good intentions to let him rest, the family gathered about his bed, talked to him in their stilted English, strove to understand his "Americanisms."

"We sort of feel that you Icelanders are kinfolks," he grinned, "through your Erik Redhead and his exploring son."

"There are other connections, too," replied Madame Tordis graciously, her knitting needles flashing through the brown wool she was turning into warm mittens for her husband. "I refer to language particularly. Many of your American words trace back to our Old Norse words. Such simple, everyday words as *spoon* and *sponn* . . . *knife* and *knifr*."

"*Kettle* and *ketill*—*pot* and *pottr*," said Helga.

"*Cake*, *kaka*—*fish*, *fiskur*," added Ragna laughingly. Her gaze searched their guest's face. Dark hair,

dark eyes, lean face sun-tanned to the color of saddle leather. He wasn't a bit handsome. But that wide grin and the way his eyes crinkled at the corners—she couldn't believe he'd ever poke fun at "dirt houses."

Even Egvynd Olafsson, who was suspicious of importing foreign ideas to his beloved country, pulled a chair up to the bed and joined in the talk. But he had to register a few complaints. "All these planes you fly over here," he grumbled, "scare our sheep into fits. How Bardi keeps the flock together, I don't know."

"Tch, tch," Sam Smith clucked his tongue sympathetically. "I know just how you feel. Mom, down in Texas, has a little dairy, and I helped with the milking before I joined the army. Well, the city put an airport right next to our pasture. When the first planes buzzed off, you ought to 've seen how those crazy cows acted—kicked up their heels, hoisted their tails over their backs, and tried to outrun the jackrabbits.



And not one drop of milk would they let down. For days that went on. Now the ships zoom around and not a head lifts from the grazing."

Doctor Sigberg must have got his telephone call through finally, for before the week was over, ancient Gamalstaddur witnessed an amazing spectacle. An automobile puffed up the narrow, twisting hill road, and it didn't come to a stop till it was inside the courtyard gates. A captain and some other men in olive-drab suits piled out and announced that they had come for Lieutenant Smith.

Egvynd Olafsson greeted the newcomers ceremoniously. Madame Tordis poured coffee from an ancestral silver pot, and the girls passed cakes. There was much joking and laughing, but Ragna noticed her father and Captain Erroll going off to talk by themselves.

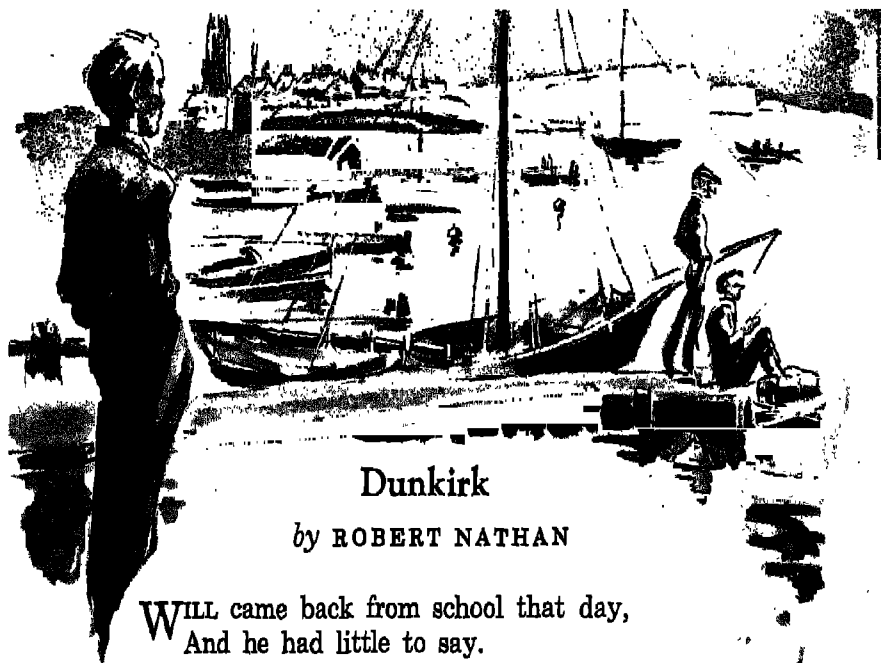
"I'm not going back to your old army camp," Sam Smith insisted to the other soldiers. "I'm going to turn Iclander and take up sheep raising."

But at last his compatriots carried him off, full of butter cakes and coffee, loudly calling back thanks and invitations to come down to Reykjavik and taste army hospitality.

Her father's arm about her shoulders, Ragna watched the motor car creeping down the hill road.

"Daughter mine," he said, taking her chin in his palm and turning her face to his. "I talked with Captain Erroll—about his men—how they feel about Iceland. They are not as I thought they were. I don't believe it would do you any harm to go to Reykjavik to the school."

She flung her arms around his neck. "Oh, Father, Father Even if I do pick up some foreign ideas, I'll always love you and always love our Iceland."



Dunkirk

by ROBERT NATHAN

WILL came back from school that day,
And he had little to say.
But he stood a long time looking down
To where the gray-green Channel water
Slapped at the foot of the little town,
And to where his boat, the *Sarah P*,
Bobbed at the tide on an even keel,
With her one old sail, patched at the leech,
Furled like a slattern down at heel.

He stood for a while above the beach;
He saw how the wind and current caught her.
He looked a long time out to sea.
There was steady wind and the sky was pale,
And a haze in the east that looked like smoke.
Will went back to the house to dress.
He was halfway through when his sister Bess,
Who was near fourteen and younger than he
By just two years, came home to play.

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She asked him, "Where are you going, Will?"
He said, "For a good long sail."
"Can I come along?"

"No, Bess," he spoke.

"I may be gone for a night and a day."
Bess looked at him. She kept very still.
She had heard the news of the Flanders rout,
How the English were trapped above Dunkirk,
And the fleet had gone to get them out—
But everyone thought that it wouldn't work.
There was too much fear, there was too much
doubt.

She looked at him and he looked at her.
They were English children, born and bred.
He frowned her down, but she wouldn't stir.
She shook her proud young head.
"You'll need a crew," she said.
They raised the sail on the *Sarah P*,
Like a pennoncel on a young knight's lance,
And headed the *Sarah* out to sea,
To bring their soldiers home from France.

There was no command, there was no set plan,
But six hundred boats went out with them
On the gray-green waters, sailing fast,
River excursion and fisherman,
Tug and schooner and racing *M*,
And the little boats came following fast.

From every harbor and town they went
Who had sailed their craft in the sun and rain,
From the South Downs, from the cliffs of Kent,
From the village street, from the country lane.

There are twenty miles of rolling sea
From coast to coast, by the seagull's flight,
But the tides were fair and the wind was free,
And they raised Dunkirk by the fall of night.

They raised Dunkirk with its harbor torn
By the blasted stern and the sunken prow;
They had raced for fun on an English tide,
They were English children bred and born,
And whether they lived or whether they died,
They raced for England now.

Bess was as white as the *Sarah's* sail;
She set her teeth and smiled at Will.



He held his course for the smoky veil
Where the harbor narrowed thin and long.
The British ships were firing strong.

He took the *Sarah* into his hands;
He drove her in through fire and death
To the wet men waiting on the sands.
He got his load and he got his breath,
And she came about, and the wind fought her.

He shut his eyes and he tried to pray;
He saw his England where she lay,
The wind's green home, the sea's proud daughter,
Still in the moonlight, dreaming deep,
The English cliffs and the English loam—



He had fourteen men to get away,
And the moon was clear and the night like day
For planes to see where the white sails creep
Over the black water.

He closed his eyes and he prayed for her;
He prayed to the men who had made her great,
Who had built her land of forest and park,
Who had made the seas an English lake;
He prayed for a fog to bring the dark;
He prayed to get home for England's sake.
And the fog came down on the rolling sea,
And covered the ships with English mist.
The driving planes were baffled and blind.

For Nelson was there in the *Victory*,
With his one good eye, and his sullen twist,
And guns were out on the *Golden Hind*,
Their shot flashed over the *Sarah P*.
He could hear them cheer as he came about.

By burning wharves, by battered slips
Galleon, frigate, and brigantine,
The old dead Captains fought their ships
And the great dead Admirals led the line.
It was England's night; it was England's sea.

The fog rolled over the harbor key.
Bess held to the stays and conned him out.

And all through the dark, while the *Sarah's* wake
Hissed behind him and vanished in foam,
There at his side sat Francis Drake,
And held him true and steered him home.

God Was Good to Luzon

by MANUEL BUAKEN

As I plodded along the country road, coming home from boarding school in Tagudin, I livened the weary miles with songs and snatches of chants that Apong Lacay had taught me. "Reverend Old Man," that's the meaning of *Apong Lacay*, or in English, just "Grandpa." Grandpa knew all the old tales of our Philippine people. There was a good one of the adventures of the brave warrior with the flying horse. But the one I liked best was the tale of the *lilikanyo*—that magic fruit of the forest known only to the heroes of the old days. If I had a *lilikanyo* now, I could rub it and make a wish for any kind of food in the world, and there it would be sitting in front of me. It was only good for food wishes, this *lilikanyo*.

If I had a *lilikanyo* now, I was thinking, I'd wish for some of the *pinaksio* that Mother was making last week from the very tiny trout that Grandpa caught in a fish trap in the river. To make these *pinaksio*, Mother first took some banana leaves and spread them over the hearth fire just a moment to make them wilt and be manageable. Upon each she put a handful of the *belis*, the so-tiny fish, and mixed with it a little salt, a little coconut-blossom vinegar, some finely chopped ginger root. Then each banana leaf would be wrapped securely and tied with string. When she had fifty or sixty of these bundles, Mother would place them in an earthen jar and steam them; all the good vitality of the sea was retained. Yes, if I had a *lilikanyo* now, I'd wish for a couple of *pinaksio*, I decided.

But, instead of enjoying the fruits of a *lilikanyo*, I found myself joined by Basilio, for whose company I certainly had not wished. Basilio was a young man of the neighborhood, overly big and stutteringly shy, who had fallen desperately in love with my sister Dominga.

"Dominga might love me better if you'd tell her that you like me," Basilio was coaxing me. "You can talk so fine."

I was cruelly blunt about my dislike of him. "My sister Dominga is smart. She can make the most beautiful embroidery and took first prizes at the fair. What can you do to match that?"

I didn't blame him for admiring Dominga. I was proud of her fair-skinned beauty. Her Indonesian-type face, with the big long eyes of glowing brown and the thin delicate eyebrows, pleased me, too. And I gloried in the knowledge and skill that she had, for Dominga could take raw fiber from the fields, put it through all the processes of spinning and weaving,



and bring it out a sheer delicate gown for herself or a loose-flowing shirt for me.

It was just that I was hungry and the sun was very hot. I was twelve years old, and food was far more important in my life than anybody's love-torn heart.

I should have liked to linger in the shade of the big mango trees beside the rice paddies or by the bright green tobacco stand. But if I did, I'd be late getting home, and then Grandpa might have eaten my share of the delicious supper Mother always had as a special treat the night I came home from school for the weekend. Also, if I was late, Father would make me recite a lot of Bible verses before I could eat. Father was the minister of our community; that's why the Bible verses figured so much in my life. Further, Father might even blame me for inviting Basilio, whom he didn't like. It certainly wouldn't be fair to blame me for that. Basilio was still stubbornly plodding along beside me, but wholly without friendly encouragement from me. He was dressed in his very best shirt, worn over his best and only white trousers, and I thought that working clothes would have been much more suitable to his broad shoulders. His forehead was creased in a frown of unhappiness at my hostility, but he was determined unto death, it seemed.

Basilio wasn't good company like Grandpa. Now if Apong Lacay were here, walking along with me, the time wouldn't be long. Grandpa was tall and erect and took big long strides. He was very boastful sometimes. He would say, "Look at that old Pedro—'Old' Pedro, they call him, and he is only sixty. Sitting under the palm tree all day, so weak that he shakes like a leaf in the wind! At his age I was still out-

running the dogs on the trail of a deer. I'm eighty now, and I can still give the deer a run for their lives, and I can see to bring down a quail on the wing at many yards' distance."

Oh, yes, Grandpa boasted, but Grandpa was always gay and full of good stories. Even now he would be bringing home a big basket of mushrooms from the forest, and as soon as he reached the house he would begin to shout, "Where is the rice? Why are the women of this family so lazy?" Then Mother and sister Dominga would scurry around, and though they would pretend to be annoyed, it was just pretend; for there was a crackling fire of good cheer that came into the house with our Apong Lacay, and it warmed us all.

Oh, there at last, nestling in the shadows of the big mango trees by the cacao shrubs, was our house—and beside it my father's church, built by much pioneer struggle.

The prospect of food soon cheered away my hostility toward Basilio, and I told him, "If you want to see Dominga, maybe she is out in the garden now." Dominga was always gathering flowers and arranging them about the house.

I ran shouting into the cool shelter of the house, calling, "Mother, oh, my American teacher is coming here next week to thank you for the coconut and rice cakes you sent."

Mother started to ask questions about school, but my appetite was impatient. "Mother, I'm hungry. Did Grandpa eat all the rice this time?"

Mother rose from her stooping over the big earthen jars on the low stove of stone and clay. She laughed and said, "Don't let Apong Lacay hear you talk that



way, or he won't invite you to go along fishing with him, and then you'll be sad. He wants you to help him set a fish trap tomorrow. And of course there's plenty of food; don't worry about that."

Our table was big and low, so that our small stools were just right for us to reach the big platter of steaming rice that Mother placed there. Mother cooked the rare and hard-to-grow red rice just in honor of me, for she was proud of her son who got good grades in English and in literature at school. Mother wrote poetry herself, and she could read Sanskrit.

Mother was gracious to Basilio. She asked about his widowed mother, for she remembered how many years he had worked hard in the fields to provide for

her, and she knew that was why he wasn't so learned in speech as Father would have liked a suitor of Dominga's to be. I heard Father tell Mother to tell Dominga never to invite him to visit here. Father wanted Dominga to be a fine lady, and he was afraid she might love this Basilio, who was good for nothing but "working like a carabao." But Mother said, "Basilio is our guest, and he must be given courtesy. And furthermore, my daughter Dominga is no fool," Mother finished with spirit; so Father hushed himself.

But, before we could eat, there must always be our family prayer. Usually Father asked me to make the prayer, and his disapproval of the way I did it often clouded my enjoyment of the food. Tonight he chose to heckle Basilio, calling upon that unhappy young man to say grace. Basilio's brown skin flushed crimson bright, yet the prayer when it came was solemnly good. I saw Dominga's eyes turn on Father with sly satisfaction.

Now, at last, I was free to eat. There was everything I liked. First the peanut soup. This was made with young peanuts from our own fields, mashed without being roasted, mixed with water, and used as the liquid to cook the young string beans—boiled only till tender, no more. Then there was a *kilawen*—a raw salad. It was made of young tamarind, young shrimps, and young onions, marinated in a liquid made of coconut-blossom vinegar and lime juice. There were also the mushrooms Grandpa had gathered, big and luscious, cooked in a spicy meat stock, eaten upon a plate of steaming rice—rice grown in our fields and husked in a hand mortar that very day.

When it came to dessert, I had eaten so much of the red rice and mushrooms and shrimps that I had not

my usual capacity to enjoy our tree-custard—the soft meat of the very young coconut topped by tasty brown sugar of our own manufacture.

Father relented a little toward Basilio and allowed him to carry on his courtship of Dominga in the usual way, which was to sit in the living room after our meal, under the watchful eyes of all the family, and to amuse the family, if he could, by telling riddles and jokes, while Dominga demurely carried on her embroidery work.

“Grandpa, how does it happen you always get up so early in the morning?” I asked him at dawn next day, as we ate our rice and roast eggplant with some fish sauce on top. With a cup of hot chocolate we finished our hearty breakfast. The chocolate was made of cacao beans grown there at home, roasted and crushed by Mother, made piping hot now with coconut milk and brown sugar from the sugar cane we had crushed a little while ago.

“Boy,” my Grandpa answered my question, “don’t you know you miss the best of living if you get up late? The birds sing best in the morning, and the warm water of the river can be all my own early in the morning.”

That was Grandpa. He never missed his early morning dip in the river!

Now he went striding along the country road, up to the mountains where the forks of the river were. Here we would set our fish trap. I had to make my barefoot legs twinkle in order to keep up with Grandpa’s long strides. At the forks, we chose the smaller branch and set out to make a dam across it. The dam would be built of stones and bamboo poles clinked up with mud.

“God is good to Luzon,” Apong Lacay said. “Every

year the rains come, and then all the fish are gone from the river, swept down to the sea by the raging waters. But the rains make the rice grow green. And, by the time the rice is ripe, the new little fish swim up from the sea in millions and we catch them with our fish trap."

For that was the purpose of our dam, to divert the water of the river into a narrow channel. And there in that channel we put the fish trap that Grandpa had woven of rattan and fine bamboo, shaped like a big vase.

"God is good to Luzon, but we have to do our share, too," Grandpa repeated as I grew tired of carrying heavy stones to make the dam. But after a while he took pity on my twelve-year-old self and sent me to the shade of the big trees that bordered the stream. "See if there are some mangoes ready for eating," he said.



And then the stones were all in place, and all we had to do was to wait a little while, then harvest our catch. Meantime we ate the cold rice balls and the *pinaksio* that Mother had given us, and we had ripe, juicy mangoes for dessert. Grandpa told me one of his fine old tales. This time it was how the Monkey outwitted the Crocodile, to prove that strength is not the main thing in this world.

Then it was not quite so hot, and we took up our fish trap. Inside were many pounds of tiny fish and of wiggling little shrimps—a heavy load for Grandpa to carry.

He walked tirelessly on the way back, but I longed to rest. All that hauling of rocks to make the dam had exhausted me. At last we neared home, and as we came to the field where our carabaos were kept, Grandpa and I saw Basilio sitting on the fence, waiting for us. Beyond him, working in the field, were two men, Juan and Pedlo.

"Apong Lacay," Basilio said humbly, "you are wise. How can I win the good will of Dominga's father? He tells her to marry Federico soon."

Grandpa snorted. "When I was young, I didn't need any lessons in courting girls. Nowadays young people are so helpless." But Grandpa was kind-hearted, and soon he was telling Basilio a long tale of courtship methods that were successful with stubborn fathers. I was tagging a little behind, thoroughly bored with Basilio and his lovesickness, when there came frantic shouts from the field.

The carabao that Juan and Pedlo had been trying to tame for the plow had broken away, and it was angrily charging down the road, bearing down upon me.

With a gasp I started to run. But I was so tired

I couldn't go fast. Basilio ran, too, but *toward* the charging carabao, fleet as the wind. He shouted loud to attract the attention of the animal and, being unsuccessful, caught it by the horns as I fled from under its very hoofs. I made the temporary safety of the bamboo fence and turned to watch, horrified, as Basilio lost his hold on the carabao's horns. He side-stepped its charge once, but again the carabao lunged, and this time the horns caught Basilio and flung him into the air.

Grandpa had thrown down the heavy fish trap and got hold of the rattan rope that the carabao had broken. He ran in close and threw the rope. Juan and Pedlo threw another rope and got the carabao tied up. Now there was time to rescue Basilio, who was lying quietly where the carabao had tossed him. He was bruised and bleeding, but Apong Lacay said, "Those horns only grazed his side."

"It would take more than one carabao to kill that Basilio," Grandpa shouted. And then I knew that Basilio had a champion at last.

All next day Dominga fluttered around Basilio's bedside, for he was naturally taken to our home to recover from the bruises and the jagged tear in his side. Mother made the choicest chicken soup for him. I was a little jealous, for that special chicken soup, flavored so delicately with ginger, was my favorite dish Mother made for me if I was ill. So I was glad to go back to boarding school again, for another week of English and arithmetic and American history. Basilio had saved my life; I knew that. But I still despised the way that he and Dominga made moon-eyes at each other all the time. Such mush! As for me, I prefer a good dish of Mother's cooking to love-making any day.

America in My Blood

by LEON Z. SURMELIAN

HOPE had returned with the spring. After the bewilderment, the loneliness of my first winter in America, I began to live again when I saw the lawns turning green and the dandelions—they were with me in the street. I picked them with trembling fingers, to make sure they *were* dandelions.

Yet now, on the train hurtling across the Kansas countryside in the summer night, the pain of my being in a strange land became sharp again. The farm where I was to get the practical experience required for my college degree in agriculture was more than a hundred miles away. Always I was going farther and farther away from Trebizond, my home on the Black Sea, in old Armenia.

When I got off at a little country station, Harry Schultz, my college friend, was waiting in the family Ford. I would work for his father that summer.

We drove through the streets of a small town and then across open country. Fields and woods shone in the moonlight. I smelled June-in-the-country, the familiar fragrance of moon-drenched earth when the wheat is almost ready to be harvested and when red poppies are knee high. Was this really Kansas, really America?

In vain I looked for a village. Everywhere was open country, though we drove past isolated houses now and then. "No villages in Kansas?" I asked Harry, who piloted the Ford on the rutty road with marvelous skill.

"Sure we have villages. We just passed through one—Knox Springs, where you came in on the train."

But Knox Springs hadn't looked like a village to me. It was a town, with banks, barber shops, stores, filling stations.

"I guess your villages are different," Harry said after a silence.

"Well, you see, farmers live together in ours," I explained. "Not one house here, another house there, a mile away behind that hill. You can see our farmers walking to their fields in the morning and coming back in the evening, though there are fields also in the villages. On Sundays the people gather on the green, and the young folks dance, all together, hand in hand, not two by two. The musicians play wooden flutes attached to sacks of calfskin—what do you call them—bagpipes? Also little violins, which they hold like violoncellos. They play very well. Our farmers are poor, but happy. They sing when they plow or sow or harvest their crops. Folk songs, you know. Everybody in my country knows them."

"Sing me one," said Harry.

"But you will not understand."

"Sing it just the same."

I cleared my throat and broke into a gay peasant song addressed to the birds. But the words sounded strange. I had not heard my native Armenian language for so long that I felt as if somebody else were singing. I was so deeply moved by what I sang—or rather heard—that I could have cried.

At the Schultz farm Harry's mother, a short, pleasant-faced woman, and his two very attractive sisters met us in the yard. I wondered what they thought of me.



My heart was thumping with deep hammer blows, and I felt like running away.

"Where's Dad?" asked Harry.

"Gone to bed," his mother answered.

As we entered the house, I noticed the radio, phonograph, sewing machine, and bookshelves in the living room. To my intense surprise there was nothing rural about this house except that it was lighted by kerosene lamps. These delighted me. It was the first time I had seen a kerosene lamp in America.

We talked for a while, and I had to answer the usual questions: How did I like America? Were the houses in my country like American houses? Did people over there wear the same type of clothes?

"Harry, you had better show him to his room," Mrs. Schultz said, after I had told them nearly my whole life story.

"Yes, you'd better get all the rest you can tonight. We have to get up mighty early in the morning." Harry chuckled. "Four thirty. That too early for you?"

"No, not at all," I said, eager to please.

"It's early to bed and early to rise with us," Mrs. Schultz said, smiling. "I'll have a pair of overalls ready for you in the morning. You are just about Harry's height."

Harry took me upstairs to a large airy bedroom, with a wide double bed, a writing desk, a dresser, and a framed religious motto hanging on the wall. The windows had shutters like the village houses back home in Trebizond. The room was flooded with moonlight and the good smell of the cooling earth on a summer night.

"How do you like it?" Harry asked, putting down the kerosene lamp.

"I like it very much," I said gratefully. I had wondered if I was to live in the same house with the family or to be treated like a servant.

Alone in my room, I touched the window shutters caressingly and looked out to see the moonlit details of the farm. In the yard a water pail by the pump cast a shadow just like a water pail in the old country. I filled my lungs with the intoxicating odor rising from a freshly mown alfalfa field, and listened to the thrilling night sounds of my childhood; for, amazingly enough, the crickets and frogs of Kansas sounded just like the crickets and frogs of Trebizond. It was the same silence of the night that I was hearing again, the same sweet summertime music of the earth's dreams. I had discovered the earth I had lost, the stars and the moon of my childhood. My exile was over.

Early the next morning I began my apprenticeship on an American farm, wearing overalls. In them I felt like an American. Harry and I went to the pasture to bring in the cows. It was a golden June morning. The young corn crackled in the breeze, and the orchard was ablaze with ripe sour cherries. I was in secret raptures over those cherry trees.

"Do you know," I said to Harry, "cherries come from a place near my home town, from Kerasun, on the Black Sea? That's why they're called cherries."

He was surprised.

"And do you know the scientific name of the apricot?" I asked.

He admitted that he did not.

"*Prunus armeniaca*—Armenian prune. Oh, a lot of other fruits come from my country! Chestnuts, for example. The English word *chestnut* is derived from the Armenian word *kaskeni*, which means 'chestnut tree.' "

A little brook ran through the pasture, where I saw blackberry and gooseberry bushes, and even loquat trees. To complete this miraculous picture, a spring flowed from under a rock through a narrow wooden trough with a leaf dangling at its end!

The sleepy cows struggled to their feet, heavy with milk, their big udders tight and full. We drove them to the barn, where Harry's father was waiting. He was a man of dignity, given to few words, tall, impressive, with keen blue eyes. But he looked ridiculous to me when he sat on a small stool, put a pail between his knees, and proceeded to milk. In Turkey, women do the milking.

Yes, preposterous as it seemed, we three men had to do the milking. Mrs. Schultz and the girls were

nowhere to be seen. They were busy preparing breakfast and setting the table. It was an excellent meal they served when we finished milking—grapefruit, bran flakes and cream, home-cured ham and eggs, fresh country butter, homemade bread, good hot coffee. Mr. Schultz said grace, thanking God for His many blessings.

My first efforts as a milker supplied the conversation at the table. Of course I had been clumsy and nervous that first morning, but in a week I could milk as well as Harry.

After breakfast we put two full ten-gallon milk cans in the Ford and drove to a collection point on the highway, where they were picked up by a truck. That drive was another thrilling experience. The road, with its startlingly familiar bends, the bushes and trees that bordered it, the chip-chip of the sparrows, the tufts of wool caught on the wire fences—all these might have been in a village of Trebizond and were infinitely dear to me. I felt that at any moment my childhood playmates—Vahe, Nikolaki, Anthula, Penelope—would come running down a field with bows and arrows, slingshots, and sticks, wearing wreaths of wild flowers. "Hey, where have you been?" they would ask. "Come on, we're going to pick wild strawberries and have a picnic lunch."

The real toil began after these preliminary morning chores. A field had to be plowed, and I begged Harry to let me do it. What a thing of beauty and precision the modern steel plow is! Harry showed me how to cut furrows of uniform depth and width, turning the surface completely under.

A no less heroic task was pitching hay in the afternoon. This was sheer poetry. True, my hands



became blistered, my face, neck, and shoulders sun-burned, and the blue shirt on my back wringing wet with perspiration. The mighty Indian sun blazed down upon the immense Missouri Valley. But I exulted in the powerful heat of the earth, in the dust and odor of alfalfa hay.

By nightfall I was dead tired, with a fine fatigue. Something important had happened to me, but I did not know how to word it, not even to myself. Somehow I felt as if the earth and sun of Kansas flowed through my veins, that I had suddenly become an American, that I had been born again and wedded to the American soil.

This kind of Americanization has nothing to do with speaking English, taking out first and second

papers of citizenship, and swearing allegiance to the Constitution. Those are comparatively unimportant.

When, three months later, I returned to college, I was thoroughly Americanized. The nightmare of the previous winter, when I had felt very homesick and alone in the New World, was over. Now I could laugh and clown. I was happy, a boastful Kansan. If anybody said our college wasn't the greatest and best in the world, I felt insulted. I yelled myself hoarse at football games, avidly read the sport pages of newspapers, which had meant nothing to me before. I wrote two poems about Kansas which I sent to the *Topeka Daily Capital*, and to my utter astonishment and joy they were published. I joined organizations, was invited to speak before various clubs, and dated pretty girls—but that is another story!

What is it that soldiers fight and die for? What is it that makes a nation? Language, history, traditions? These are factors, yes; but my experience on a Kansas farm had taught me that the main thing that makes a nation is the feeling its citizens have for the earth of that nation—the dandelions and the moonlight and the crickets and the crackling of young corn in the morning breeze.

That summer I had seen how the hot sun shining upon the Missouri Valley had brought forth rivers of golden grains. I had heard the droning of bees among wild flowers in the stillness of the noon, the sound of the woodpecker. I had listened to the song of bread sung by millions of invisible lips in miles of scented wheat fields at night.

America had flowed into my blood; the earth and the sun, the wind and the rain, the moon and the stars of America were within me.

The Outdoor World



Fawn's First Journey

by MAUD E. USCHOLD

SOFTLY comes the wary doe
When the night is fringed with dawn,
Where the hushed waters flow;
Like her shadow moves her fawn.

Sampling morning winds for signs,
Starting at each woodland sound;
Soft as needles from the pines,
Tiny hooves fall on the ground;

Far the gaze of questioning eyes
Wanders, but no footsteps range
In adventurous enterprise
Through the forest dark and strange.

Softly steps the dappled fawn
Close beside the watchful doe
In the silence of the dawn,
Where the shadowed waters flow.

Old Scar-Back

by STEPHEN W. MEADER

THE trail led obliquely down a rocky New Hampshire hillside to a bare ledge, twenty or thirty feet wide, and ran for a hundred yards along the mountain. Except for a few sheltered patches, the snow had been melted off by the sun, and at the edge of the rock the deer prints vanished completely.

"Now," said Breck Townsend, "if I hadn't spent two days watching Old Scar-Back's mind at work, I'd probably go straight across the ledge and expect to find his tracks on the other side. But he came here for a reason, and that was to break the trail."

Sam McArdle nodded. "Correct," he said. "Let's go in opposite directions and call if we find anything. I'd like to keep my promise to help you get some good animal pictures if you'd come here for Thanksgiving vacation."

Breck turned northward. He knew better than to walk along the rim of the rock. Instead, he went into the woods below and held his course parallel with the ledge and a dozen yards beyond it.

What he was looking for was a bush or a thicket, screening the rim of the ledge, and when he found it, a moment later, his eyes went straight to the cluster of deep dots in the snow. The deer had jumped from the rock, just as he figured, and landed beyond the bushes, so that the trail was hidden from above.

"Oh, Sam," he called softly, and when the other lad joined him, they followed the buck's tracks southwestward down the mountain. In spite of the de-

scending slope of the ground, it was hard going. The tangle of vines and brush grew constantly denser, and fallen trees blocked the path. Before them the woods seemed impenetrable.

Sam, stopping to clamber over a ridge of rock, stared in dismay at what lay ahead. "Do you see that hemlock thicket?" he asked. "If they went through there, we'll have to quit. It's the sort of place where you wriggle on your belly and cut your way with a knife."

But the tracks turned to the left at the edge of the hemlock growth, skirting the thicket to the south. Suddenly the boys stopped in bewilderment. Beside a huge fallen log the tracks joined a maze of others, and a half-dozen deer trails converged at the spot, leading from as many different directions.

"These tracks go both ways," said Sam. "And some of them are days old. Look—here's where Old Scar-Back came once before. What do you reckon this is—some sort of meeting place?"

Breck looked about carefully. "I've got it," he said at last. "Hold on—don't go too near that log. We don't want to leave our scent all over the place."

"Why not?" asked Sam.

"Because we're coming back here, and so are the deer," he answered. "I'll bet you right now that there's a place in the middle of these hemlocks where they sleep. I wouldn't have guessed it except that I saw a mark in the snow, there on the top of the log. A doe jumped over it and didn't lift her feet quite high enough. One of them flicked the snow off and left a groove. She must have landed or taken off right in the thicket. Lift me up and let me look over on the other side."

Stepping in Sam's cupped hands and steadying himself against a tree, Breck was able to command a view of the brush on the other side of the log.

"Yes, sir!" he whispered excitedly, "there's a passage through there, and I can see tracks a little way in."

The boys withdrew a short distance to discuss their find.

"I think you're right," said Sam. "I've heard of these hidden 'yards' from some of the old hunters. The deer don't use 'em every night, but as long as they're in the neighborhood and don't know they're being chased, they're likely to lie up here. There's only one thing against it tonight. The wind's southwest. And the entrance, if that's it there behind the log, is on the south side of the thicket. The old king buck might decide it was too risky to go in unless he could get the scent of the place first. That's something we'll just have to chance."

"All right; what's your idea?" asked Breck.

"The only way I can see is to burrow our way through, somewhere on the north edge of the hemlocks, and wait for 'em to come in. The whole thicket isn't more than fifty yards across, and we ought to be close enough for a picture if the deer get inside without hearing or smelling us."

"Great! That's just what I was thinking," Breck exclaimed. "It's about three thirty now, and it'll be dark in two hours. We may have to wait most of the night, but I'm game to try it if you are."

The boys spent a few moments in a scouting expedition around the northern side of the covert, but found no other deer tracks. Apparently the herd always approached the place from the south.

"Well," said Breck at length, "it doesn't make much difference where we try to get in as long as it's on this side. It won't be easy anywhere." Crouching on hands and knees, they began crawling through the mass of thick-grown bushes and interlacing twigs. Breck let Sam go ahead, cutting a path with the camp ax where it was necessary.

At last Sam paused in his labors and looked back with a grin on his face. "There's daylight ahead," he panted. "Five minutes more and we'll know what's inside this deer castle."

After a brief rest Sam again attacked the stubborn undergrowth. It was a matter of hacking out a tunnel as far ahead as his arm would reach, then creeping forward a foot or two and starting afresh. When



he had progressed a few yards more, he squeezed his body to one side and motioned Breck to come up. They were through the worst of the thicket. Beyond were a few bushy little hemlocks forming a waist-high screen. When Breck rose to his knees, he could see over their tops.

In the center of the thicket was an irregular open space, nowhere more than thirty feet across, and walled like a room with evergreens and young birches. But it was the floor of this woodland chamber that gave him a thrill. In the middle the snow was trampled hard. Even around the nearer edges hundreds of dainty tracks dotted the white snow, and every birch twig, from the ground to the height of a man's head and higher, was stripped of its tender bark.



Sam had already had his view of the place. "Say, we're in luck," he said, his eyes alight. "You know we'd never have got close enough to take a picture if we'd kept on following the buck. But this way I honestly think we have a chance. It all depends on how suspicious he happens to be and whether the wind holds."

Breck nodded. "If we're going to wait here," he said, "we'll need room to stretch out in comfort. I'll go back to that last little brook we crossed and get a canteen of water while you're trimming out some more here. We'll have to do without supper, I guess. I wouldn't want to build a fire anywhere near here."

When Breck returned with the water, Sam had a space about four feet square cleared of brush and had brought in the gun, camera, and duffel. They wrapped their blankets around themselves as comfortably as possible. Breck looked over the camera carefully. "We've got to plan everything while it's still light," he said. "I'll be responsible for handling the camera. I'll open the shutter; the flash will be up to you. If you hold it just above those two little hemlocks—so—it ought to light the whole place like a ballroom. I'll be right over here with the camera. You listen hard, and when you hear the shutter click open, you'll know that I'm ready. Then you'll have to work fast, because Old Scar-Back'll hear the click, too."

They went through the motions two or three times for practice, then settled down to wait. With the sunset it grew cold in the woods. There was a mournful sighing of wind in the taller evergreens, and through it came the occasional faint chirp of a winter bird going to its roosting place. The boys wrapped them-

selves closer against the chill and sat there hunched and silent.

Breck's worst fear was that one or both of them might fall asleep. As it grew darker, he nudged Sam every little while and was impatiently nudged back. They knew how silently the deer would come, and they were afraid even to whisper, now.

The steady strain of watching the dim, white oval of the clearing made Breck's eyes water and ache. He longed to close them just for a moment, but fought off the inclination doggedly. How long they sat there he did not know. The night seemed ages long. A half-dozen times he was on the point of giving up the vigil in disgust, but at last he decided that morning could not be far off. He would stick it out till dawn.

Then he was blinking his eyes in astonishment. For a moment he thought he must be dreaming of those shadows that drifted so slowly across the open space. A stealthy shove from Sam's elbow told him they were real. One, two, three—he counted on to five—slim, dark creatures with great, inquisitive ears. And then he saw the king. Without a sound, without even the rustle of a bough, the biggest shadow of them all slipped out of the black wall at the far side of the clearing. It hesitated, took two cautious steps forward and stopped again, testing the traitorous wind. Inch by inch Breck brought the camera upward to rest on his knee. He could see nothing through the finder, but he pointed it by touch, making sure the line of vision cleared the hemlock bush at the right. Then, trying to control the trembling in his fingers, he laid them on the shutter release.

"Whoosh!"



With startling loudness the buck had whistled, then moved. He was nearer—poised for a tense instant, right in front of the does. Breck clicked the shutter open. And suddenly the secret place of the deer was illumined by a sheet of white light brighter than noonday.

It lasted but a fraction of a second—that illumination—and the dark that followed was black as the pit. But whatever the camera had caught, Breck knew that the picture he had seen was worth all the toil it had cost. Shaking like a leaf, he closed the shutter and sat staring ahead of him. When his eyes were adjusted to the night again, the glade was empty.

"Whew!" breathed Sam at his side. "There was more kick in that than I ever got hunting with a gun! I'm as weak as a cat, now it's over. How'd you make out?"

"All right, I hope," laughed Breck. "If I didn't, I'm the prize boob of the world. Gosh, what a chance he gave us!"

"Yes," interrupted Sam, "and I thought you were never going to get that camera set. Seemed as if I just couldn't wait any longer, for I was sure he'd jump clean out of the place any second. I bet he knew something was wrong just as soon as he set foot inside!"

For several minutes after the tension was relaxed they chattered like a pair of magpies. Then Breck rose and stretched his legs. "Well, now we can get home in time for breakfast," he yawned.

"Breakfast!" cried Sam. "Say, what time do you think it is?" He hauled out a pocket flash and pointed it at his watch. It was just five minutes after ten.

Breck's laughter mingled with Sam's and went ringing through the woods. If anyone else was on the mountain that night, he must surely have thought that there were lunatics at large. The boys collected their duffel, crawled out of the thicket, and started for home. Sam went ahead with the flashlight, and Breck followed, carrying the camera as if it had been a basket of eggs. When they were in the car, Breck lay back luxuriously in the seat.

"It's been a grand vacation," he sighed. "I never felt happier in my life."

He was quiet for a minute; then asked, "Do you suppose the stag will ever come back to that place?"

"I was just wondering the same thing," said Sam. "Gee, I'd hate to think we'd scared the old boy away for good. Did you ever see a neater hideaway? No wonder he's kept his health all these years!"

"Well, we don't need to worry about him," Breck grinned. "He's probably got a dozen strongholds like that. And if he hasn't, he can find 'em. The mountains are big, and he's wise."

They were at home and in bed before midnight. Next morning Sam was still snoozing peacefully when Breck walloped him with a pillow.

"Hey!" grunted Sam. "Don't you know it's Thanksgiving and a swell morning to sleep?"

"I know it's half past eight," Breck laughed. "And we've got to rig up a darkroom and do some developing."

"Gee, that's a fact!" said Sam, tossing back the covers. "Go ahead to breakfast, and I'll be with you in a jiffy."

Mr. McArdle and his wife were almost as excited as the boys over the success of their expedition, and little else was discussed during the morning meal.

"Now you've taken the buck's photo, Breck, I reckon you've got all you came up here for—and maybe a little extra," beamed Mr. McArdle.

"Don't be too sure about the picture," Breck warned them. "It may not show a thing but his feet, or the back side of a bush. Or I may have jiggled the camera. We'll just have to wait and see. Sam and I are going to work on it this morning."

"Fine!" said Mr. McArdle. "It'll keep you busy."

The New Hampshire boy had experimented with amateur photography before, and he quickly transformed his mother's big linen closet into a darkroom.

They carried in buckets of clean water and a couple of washbasins and covered the lens of a hand flash with four or five thicknesses of red paper to give them light. Then Breck took the film out of his camera, handling it as gingerly as if it had been a tube of radium.

There was a breathless twenty minutes while the film was in the developer. The boys looked, waited, looked again, and then Sam burst forth in an excited whisper. "It's there! You got him—every inch of him! Boy, what a shot!"

Breck washed the film carefully and put it in the hypo bath. Then followed another half-hour of impatient waiting. When at last it was "fixed," they rushed at top speed to the kitchen. Breck placed a soup plate in the sink and set the film to wash under a stream of water from the tap.

"How does it look?" inquired Mrs. McArdle eagerly. But Breck shook his head. "You wouldn't be able to tell much from the negative," he said. "In three hours this ought to be dry, and then I'll pull a half-dozen prints. If I don't do anything to spoil it, I think it'll be quite a picture."

The boys spent the rest of the morning alternately passing a football in the yard and running in to make sure the drying negative was safe.

"Land's sakes!" cried Mrs. McArdle cheerfully. "How many more times are you youngsters going to traipse through my kitchen? First thing you know, I'll put aprons on you and set you to work!"

Breck offered to help, but she sent him on his way with a laugh. "No, indeed!" she said. "When I'm getting a Thanksgiving dinner, I don't want any menfolks underfoot."


By one o'clock the film was dry enough to print. And an hour later the boys were proudly bearing the first finished picture into the living room.

Sam grinned. "Pop, you told me once you never saw a stag with more than ten points. Well, you're going to see one now! Old Scar-Back's got twelve. Count 'em yourself."

Mr. McArdle took the print in his hand and stared in amazement. "Great jumpin' Jehoshaphat!" he murmured. "Look—at—that!"

It was worth looking at. The camera had caught the buck in clean-cut outline from the frosted tips of his antlers to his black and shining hoofs. His head was up—his startled eyes wide—his nostrils distended. Even the long scar on his shoulder showed clearly. Close behind him were the huddled shapes of the does, and then the background of white snow and somber forest. It was one of those perfect pictures that camera hunters dream of.





The Snare



by JAMES STEPHENS

I HEAR a sudden cry of pain!
There is a rabbit in a snare:
Now I hear the cry again,
But I cannot tell from where.

But I cannot tell from where
He is crying out for aid;
Crying on the frightened air,
Making everything afraid.

Making everything afraid,
Wrinkling up his little face,
As he cries again for aid;
And I cannot find the place.

And I cannot find the place
Where his paw is in the snare:
Little one! Oh, little one!
I am searching everywhere.



Outdoor Sleuthing

by RAYMOND L. DITMARS

IF you will study the ways of the animals of the woods and fields where you hike and wander, you will come upon a procession of thrills which is just about unending. One discovery will lead to another. Keen observation will make the observer a sort of detective in unraveling the lives of various queer creatures. It is fascinating sport.

When I use the term *animals*, I mean everything from deer, muskrats, weasels, and blacksnakes, through toads and frogs to crickets and katydids. And at that I am only hitting a few of the high spots.

How about the flying squirrel? Did you ever see one, and can it really fly? These are common questions about this interesting little animal. Here is the way to solve the mystery: Watch for the trunk of a dead tree, a foot or more in diameter, that still stands upright. It should be hollow, with the top broken away. Pound on the trunk with a stout stick; then watch for flying squirrels—and look sharp.

A silvery-gray creature, or several of them, may dart out of a hole, rush to the very top of the trunk, then jump. Watch that jump keenly. The squirrel will be seen to flatten until it is almost a square in outline when it goes gliding downward and outward like a paper dart. It may actually soar to another tree without touching the ground. It does this by spreading its limbs outward from the body, which action stretches widely the elastic folds of skin connecting front and rear limbs. Here is a thing that



has long occurred in nature, while man has only recently started to experiment with the gliding idea.

The flying squirrel is a rodent, or one of the gnawing animals, and it is among creatures of this kind that we are likely to make our most frequent observations. The rabbit is a rodent, and a very timid one. Many of us have probably passed within a few feet of a rabbit without knowing it; for the animal is smart enough to realize that if it snuggles into a hollow of the ground among dead grass, twigs, or leaves, it will be almost invisible.

The ground hog, or woodchuck, is another rodent. His burrow is dug downward for a way, then horizontally, finally taking a bit of a sweep upward. The idea is to prevent the burrow from being flooded



by rains. At the end is a snug nest of dry grass. This is the woodchuck's bed during the long winter sleep.

This animal becomes very fat during the autumn, and with the first freezing weather he crawls into the nest, fluffs the grass around in cozy fashion, then curls up and dozes for a full three months.

The thaws of February and the penetration of the warming sun may wake the woodchuck, and he peeks out. The drab landscape, however, is anything but to his liking; so he promptly goes back to sleep again for another month or so, to emerge much thinner than at the time of the fall retirement. The fat has been absorbed as nourishment during the long winter sleep.

About the time the woodchuck is scouting around for some really green food, you may note another thing out-of-doors that requires some real detective work. But before coming to that, let us figure how we are really going to see that woodchuck.

After you have located the hole, you can stalk it from a distance, watching sharply and keeping yourself well under cover. You must advance slowly, like a skirmisher. You may see the woodchuck stretched out flat on his stomach taking a sun bath or sitting up and looking like a little bear. And how he will rush for cover when he sees you!





But now for the other thing that may happen when you are stalking the woodchuck.

A bird runs along in front of you. It is dragging a wing and seems to be hurt. You feel that all you have to do is to reach forward quickly and pick up the little creature to see what has happened to it. Try it!

Just as you are about to grasp it, the bird flutters out of your reach, then drags the wing again, *luring* you forward; and that is the word explaining this strange performance.

The bird is luring you away from her nest as she does her natural enemies, cats and weasels and possibly a prowling blacksnake, which, while normally hunting for small rodents, would consider a nestful of young birds a fair delicacy.

Why do different kinds of toads gather around pools where their piping or tremulous calls are heard in the spring—and disappear from these pools as soon as the weather becomes warm? Here is a chance

for some detective work, and the "case" will require the observer's attention for several months.

The toads go there to lay their eggs because they begin life as tadpoles, like the really aquatic frogs. The tadpoles later grow legs, absorb their tails as nourishment while the mouth parts are changing, then leave the water by the thousands as tiny toadlets.

The next time you hear the toads piping at a pool, don't be satisfied to say, "Listen to the toads"; go and have a look at them.

If the singing is coming from a colony of peepers, which are miniature tree toads not any larger than a joint of your little finger, you are going to have a surprise. They will stop singing as you approach the pool, but they will start again if you remain motionless at the water's edge. You may hear one right in front of you. But try to locate him! Ten to one he has ducked around the opposite side of a little tuft of grass protruding from the water. If you are patient enough, you will locate the creature and note that in singing its throat swells up like a bubble pretty nearly as big as its body and stretches so thin that the light shines through it.

I think young people can have a lot of fun studying the different kinds of insects that sing at night. There is a lot of sport in stalking them with a flashlight, catching and bringing some home to hear their songs within doors.

The kinds of insects I mean are the crickets, the meadow locusts (which are like grasshoppers with leaflike wings), and the katydid. The latter is a prize. It is easily heard but hard to get and can make about as much noise as a parrot.

All of these insects "sing" by rubbing the forward

edges of the wings together. That is, the males do this. The females are always silent. There are stiff patches on the forward edges of the male's wings, which, when closely examined, look like mica. These are the resonating or stridulating organs. The volume of sound produced by these small creatures is astonishing.

The star of all singing insects in the home area is the katydid, which ordinarily sings in the tops of trees—birch, willow, maple, or oak. It is thus extremely hard to catch, but sometimes a lower tree harbors a talkative specimen, and if you merely touch the branch with a pole, the insect will suspect danger and drop. The flashlight must be ready. The creature looks like a small falling green bird—for the katydid is a big insect. One characteristic of the katydid is that it will eat nothing but the leaves from the kind of tree upon which it is found. This does not make its care difficult, as a small branch of a half-dozen leaves kept fresh in damp sand may be placed in the singing cage every day. The katydid needs to have a leafy bower of this kind in order to feel content.

So there we are, my young friend. I feel that you have now been put on the trail of some keen sleuthing in the fields and woods. Of course, there is a lot more to watch for. What is that noise sounding like a muffled riveting machine? A woodpecker, you say. No—it's not a woodpecker. And see here! What does *this* mean?

I'm not going to answer these questions. This story was intended to start you on some detective work out-of-doors. We have been hitting only a few of the high spots. You have years of thrills ahead in solving what goes on along your trails and around your camp.



The Pasture
by ROBERT FROST

I'M GOING out to clean the pasture spring;
I'll only stop to rake the leaves away
(And wait to watch the water clear, I may):
I shan't be gone long.—You come too.

I'm going out to fetch the little calf
That's standing by the mother. It's so young,
It totters when she licks it with her tongue.
I shan't be gone long.—You come too.



On a Night of Snow

by ELIZABETH COATSWORTH

CAT, if you go outdoors you must walk in the snow.
You will come back with little white shoes on your
feet,

Little white slippers of snow that have heels of sleet.
Stay by the fire, my Cat. Lie still, do not go.
See how the flames are leaping and hissing low;
I will bring you a saucer of milk like a marguerite,
So white and so smooth, so spherical and so sweet—
Stay with me, Cat. Outdoors the wild winds blow.

Outdoors the wild winds blow, Mistress, and dark is
the night.

Strange voices cry in the trees, intoning strange lore,
And more than cats move, lit by our eyes' green light,
On silent feet where the meadow grasses hang hoar—
Mistress, there are portents abroad of magic and might,
And things that are yet to be done. Open the door!



Old Slewfoot

by MARJORIE KINNAN RAWLINGS

PENNY pushed back his plate and stood up from the table.

"Well, son, we got our day's work laid out for us." Jody's heart fell. Hoeing——

"We stand a right good chancet o' comin' up with Old Slewfoot today. I'm tired o' havin' my pigs carried off by that bear," said Penny.

The sun was bright again for Jody.

"Fetch me my shot bag and my powder horn. And the tinder horn."

Jody jumped to bring them.

"Look at him move," his mother said. "To see him hoe, you'd think he was a snail. Say 'huntin' and he's quick as a otter."

She went to the kitchen safe and took out one of the few remaining glasses of jelly. She spread the jelly on the leftover stack of hot cakes and tied them in a piece of cloth and dropped them in Penny's knapsack. She took the remains of the sweet potato pone and set aside a piece for herself, then added the pone to the knapsack.

"This ain't much dinner," she said. "Mebbe you'll be soon back."

"Don't look for us 'til you see us," Penny said. He swung the knapsack and tinder horn over his shoulder and called the dogs. At sight of the old muzzle-loading shotgun, Julia lifted her voice in a wail of delight. Rip shot from under the house to join her. Perk, the new fice, wagged his tail stu-

pidly and without understanding. Penny patted the dogs in turn.

"You'll likely not be so merry, time the day be done," he told them. "Jody-boy, you best put on your shoes. Hit'll be rough goin', places."

It seemed to Jody that he would burst if there was further delay. He dashed into his room and routed out his heavy cowhide brogans from under the bed. He slipped his feet into them and raced after his father as though the hunt would be done and over before he reached him. Old Julia was loping ahead, her long nose against the trail of the bear.

"The trail'll not be too cold, Pa? Reckon Old Slewfoot won't be gone too fur yonder to ketch up with him?"

"He'll be fur yonder, but we got a heap better chancet o' ketchin' up with him, do we let him take it easy and give him time to lay up. A bear that knows he's follered moves a sight faster'n one that figgers the world's his own, to prowl and feed in."

The trail led south through the blackjacks. After the rain of the afternoon before, the great nubbed tracks made a plain pattern across the sand.

"He's got a foot like a giant," Penny said.

The blackjacks ended as though they had been sown by hand and there had been no more seed in the sack. The land was lower, and the growth was of large pines.

"Pa, how big you reckon he be?"

"He's big. He ain't full weight right now, account of his stomach bein' shrunk up from layin' up, and empty. But look at that track. Hit's sizeable enough to prove him. And look at the way it's deeper at the back. A deer track'll prove the same. A deer or bear that's fat and heavy'll sink in that-a-way. A

leetle ol' light doe or yearlin'll walk tippy-toed, and you'll not see more than the front of their hooves. Oh, he's big."

"You'll not be scairt when we come up with him, Pa?"

"Not lessen things goes mighty wrong. I'm fearful, always, for the pore dogs. They're the scapers gits the worst of it."

Penny's eyes twinkled. "I don't reckon you'll be scairt, son?"

"Not me." He thought a moment. "But if I was to be scairt, must I climb a tree?"

Penny chuckled, "Yes, son. Even if you ain't scairt, hit's a good place to watch the ruckus."

They walked in silence. Old Julia moved certainly. Rip, the bulldog, was content to follow at her heels, snuffing where she snuffed, stopping when she hesitated. She blew through her soft nose when the grasses tickled it. The fice made dashes to one side or another and once tore wildly after a rabbit that bolted from under his nose. Jody whistled after him.

"Leave him go, son," Penny told him. "He'll join up ag'in when it comes to him he's lonesome."

Old Julia gave a thin high wail and looked over her shoulder.

"The wise old scaper's changin' his direction," Penny said. "Likely he's headin' for the saw-grass ponds. Iffen that's his notion, we kin mebbe slip around and surprise him."

Jody said, "You shore kin figger what a creetur'll do."

"You belong to figger. A wild creetur's quicker'n a man and a heap stronger. What's a man got that a bear ain't got? A mite more sense. He cain't out-

run a bear, but he's a sorry hunter if he cain't out-study him."

The pines were becoming scattering. There was suddenly a strip of hammock land, and a place of live oaks and scrub palmettos. The undergrowth was thick, laced with cat briers. Then hammock, too, ended, and to the south and west lay a broad open expanse that looked at first sight to be a meadow. This was the saw grass. It grew knee-deep in water, its harsh saw-edged blades rising so thickly that it seemed a compact vegetation. Old Julia splashed into it. The rippling of the water showed the pond. A gust of air passed across the open area, the saw grass waved and parted, and the shallow water of a dozen ponds showed clearly. Penny watched the



hound intently. The treeless expanse seemed to Jody more stirring than the shadowy forest. At any moment the great black form might rear itself high.

He whispered, "Will we cut around?"

Penny shook his head. He answered in a low voice, "Wind's wrong. Don't seem to me like he's headin' acrost it, nohow."

The hound splashed in a zigzag trail where solid ground edged the saw grass. Here and there the scent was lost in the water. Once she dipped her head to lap, not in thirst, but for the very taste of the trail. She moved confidently down the middle of the pond. Rip and Perk found their short legs too deep in muck for comfort. They retreated to higher ground and shook themselves, watching Julia anxiously. Perk barked shortly, and Penny slapped him, for quiet. Jody stepped cautiously behind his father. A blue heron flew low over him without warning, and he started. The pond water was cold an instant against his legs, his breeches were clammy, the muck sucked at his shoes. Then the water was comfortable, and it was good to walk in the wet coolness, leaving sandy whirlpools behind.

"He's feedin' on the fire plant," Penny murmured. He pointed to the flat arrow-shaped leaves. Edges showed jagged tooth marks. Others were bitten clear off the stalk.

"Hit's his spring tonic. A bear'll make for it first thing, time he comes out in the spring." He leaned close and touched a leaf whose ragged edge was turning brown. "Dogged if he wa'n't here a night ago, too. That's how come him to have appetite for a nip o' our pork."

The hound, too, paused. The scent lay now, not

underfoot, but on the reeds and grasses where the strong-smelling fur had brushed. She laid her long nose against a bulrush and stared into space, then, satisfied as to direction, splashed due south at a lively pace. Penny spoke now freely

"He's done feedin'. Old Julia says he's clippin' it for home."

He moved to higher land, keeping the hound in sight. He walked briskly, chatting.

"Many's the time I've seed a bear feedin' on the fire plant in the moonlight. He'll snort and shuffle, and splash and grunt. He'll rip them leaves offen the stems and cram 'em in his ugly ol' mouth like a person. Then he'll nose along and chaw, like a dog chawin' grass. And the night birds cryin' over him, and the bullfrogs hollerin', and the mallards callin' 'Snake! Snake! Snake!' and the drops o' water on the leaves o' the fire plant shinin' bright and red as a bull bat's eyes——"

It was as good as seeing it, to hear Penny tell of it.

"I'd shore love to see a bear feedin' on the fire plant, Pa."

"Well, you live as long as me, and you'll see that and a heap more things, is strange and curious."

"Did you shoot 'em, Pa, while they was feedin'?"

"Son, I've helt back my shot and contented myself with watchin' many a time when creeturs was feedin' harmless and innocent. It goes agin me to crack down at sich a time. Now and agin, when it was git meat or the Baxters go hongry, I've done what I've no likin' to do. And don't you grow up killin' meat you got no use for, for the fun of it. That's evil as the bears. You hear me?"

"Yes, sir."

Old Julia gave a sharp cry. The trail cut at right angles, to the east.

"I feared it," Penny said. "The bay——"

The red bay thicket seemed impenetrable. This land of sudden changes gave good cover for the game. Old Slewfoot in his careless feeding had never been far from shelter. The bay saplings stood as close together as the palings of a stockade. Jody wondered how the bear had managed to work his bulk among them. But here and there the saplings thinned, or were young and limber, and he could see, plainly marked, a common trail. Other creatures had used it. Tracks crossed and crisscrossed. Wildcat had followed deer, lynx had followed wildcat, and all about were the paw prints of the small things: 'coons and rabbits and 'possums and skunks, feeding cautiously aside from their predatory kin.

Penny said, "I reckon I best load."

He clucked to Julia to wait for him. She lay down knowingly to rest, and Rip and Perk dropped willingly beside her. Jody had been carrying the powder horn over his shoulder. Penny opened it and shook a measure of powder down the muzzle. From his shot bag he pulled a wisp of dried black Spanish moss, inserted it for wadding, and packed it with the ramrod. He dropped in a measure of low-mold shot, then more wadding; he used the ramrod lightly again, and adjusted a cap.

"All right, Julia. Git him."

The morning's trailing had been a leisurely business; a pleasant jaunting rather than a hunt. Now the dark bay thicket closed in over their heads, jorees flew from the denseness with an alarming whirl of

wings, the earth was soft and black, and there were scurryings and rustlings on either side in the bushes.

On the trail, a bar of sunlight lay occasionally where the thicket parted. The scent, for all the comings and goings, was not confused, for the taint of bear hung heavy in the leafy tunnel. The fur of the bulldog stood on end. Old Julia ran swiftly. Penny and Jody were forced to stoop to follow. Penny swung the muzzle-loader in his right hand, its barrel tipped at an angle, so that if he stumbled and the charge went off, he would not touch the running dogs before him. A branch crashed behind, and Jody clutched at his father's shirt. A squirrel ran chattering away.



The thicket thinned. The ground dropped lower and became a swamp. The sunlight came through in patches as big as a basket. There were giant ferns here, taller than their heads. One lay crushed where the bear had moved across it. Its spiced sweetness lay heavy on the warm air. A young tendril sprang back into an upright position. Penny pointed to it. Slewfoot, Jody understood, had passed not many minutes before. Old Julia was feverish. The trail was food and drink. Her nose skimmed the damp ground. A scrub jay flew ahead, warning the game, and crying, "*Plick-up-wha-a-a.*"

The swamp dipped to a running branch no broader than a fence post. The print of the nubbed foot spanned it. A water moccasin lifted a curious head, then spun downstream in smooth brown spirals. Across the branch, palmettos grew. The great track continued across the swamp. Jody noticed that the back of his father's shirt was wet. He touched his own sleeve. It was dripping. Suddenly Julia bayed, and Penny began to run.

"The creek!" he shouted. "He's tryin' to make the creek!"

Sound filled the swamp. Saplings crashed. The bear was a black hurricane, mowing down obstructions. The dogs barked and bayed. The roaring in Jody's ears was his heart pounding. A bamboo vine tripped him, and he sprawled and was on his feet again. Penny's short legs churned in front of him like paddles. Slewfoot would make Juniper Creek before the dogs could halt him at bay.

A clear space opened at the creek's bank. Jody saw a vast black shapeless form break through. Penny halted and lifted his gun. On the instant, a small

brown missile hurled itself at the shaggy head. Old Julia had caught up with her enemy. She leaped and retreated and, in the moment of retreat, was at him again. Rip darted in beside her. Slewfoot wheeled and slashed at him. Julia flashed at his flank. Penny held his fire. He could not shoot for the dogs.

Old Slewfoot suddenly seemed to stand baffled, slow and uncertain, weaving back and forth. He whined, like a child whimpering. The dogs backed off an instant. The moment was perfect for a shot, and Penny swung his gun to his shoulder, drew a bead on the left cheek, and pulled the trigger. A harmless pop sounded. He cocked the hammer again and pulled the trigger once more. The sweat stood out on his forehead. Again the hammer clicked futilely.

Then a black storm broke. It roared in on the dogs with incredible swiftness. White tusks and curved claws were streaks of lightning across it. It snarled and whirled and gnashed its teeth and slashed in every direction. The dogs were as quick. Julia made swift sorties from the rear, and when Slewfoot wheeled to rake at her, Rip leaped for the hairy throat.

Jody was in a paralysis of horror. He saw that his father had cocked the hammer again and stood half crouching, licking his lips, fingering the trigger. Old Julia bored in at the bear's right flank. He wheeled, not on her, but on the bulldog at his left. He caught him sideways and sent him sprawling into the bushes. Again Penny pulled the trigger. The explosion that followed had a sizzling sound, and Penny fell backward. The gun had backfired.

Rip returned to his attempts for the bear's throat,



and Julia took up her worrying from the rear. The bear stood again at bay, weaving. Jody ran to his father. Penny was already on his feet. The right side of his face was black with powder. Slewfoot shook free of Rip, whirled to Julia, and caught her to his chest with his cupped claws. She yelped sharply. Rip hurled himself at the back and buried his teeth in the hide.

Jody screamed, "He's killin' Julia!"

Penny ran desperately into the heart of the fracas. He jammed the gun barrel in the bear's ribs. Even in her pain Julia had taken a grip on the black throat above her. Slewfoot snarled and turned suddenly

and plunged down the bank of the creek and into the deep water. Both dogs kept their hold. Slewfoot swam madly. Only Julia's head showed above water, below the bear's snout. Rip rode the broad back with bravado. Slewfoot made the far bank and scrambled up its side. Julia loosed her hold and dropped limply on the earth. The bear plunged toward the dense thicket. For a moment more Rip stayed with him. Then, confused, he too dropped away and turned back uncertainly to the creek. He snuffed at Julia and sat down on his haunches and howled across the water. There was a crashing in the distant undergrowth, then silence.

Penny called, "Here, Rip! Here, Julia!"

Rip wagged his stumpy tail and did not stir. Penny lifted his hunting horn to his lips and blew caressingly. Jody saw Julia lift her head, then fall back again.

Penny said, "I got to go fetch her."

He slipped off his shoes and slid down the bank into the water. He struck out strongly. A few



yards from shore the current laid hold of him as though he were a log and shot him downstream at a fierce clip. He struggled against it, fighting for distance. Jody saw him stagger to his feet far down the run, wipe the water from his eyes, and push his way back up the shore to his dogs. He leaned to examine the hound, then gathered her under one arm. This time he went some distance upstream before taking to the creek. When he dropped into the water, stroking with his free arm, the current picked him up and deposited him almost at Jody's feet. Rip paddled behind him, landed, and shook himself. Penny laid the old hound down gently.

"She's bad hurt," he said. He took off his shirt and trussed the dog in it. He tied the sleeves together to make a sling and hoisted it on his back.

"This settles it," he said. "I got to get me a new gun."

The powder burn on his cheek had already turned into a blister.

"What's wrong, Pa?"

"Near about ever'thing. The hammer's loose on the cylinder. I knowed that. I been havin' to cock it two-three times right along. But when it back-fired, that belongs to mean the mainspring's got weak. Well, le's git goin'. You tote the blasted ol' gun."

The procession started homeward through the swamp. Penny cut north and west.

"Now I'll not rest 'til I git that bear," he said. Jest give me a new gun—and time."

Suddenly Jody could not endure the sight of the bump bundle in front of him. "I want to go ahead, Pa."

Penny turned and eyed him. "Don't go gittin' faintified."

"I kin break a trail for you."

"All right. Go ahead. Jody—take the knapsack. Git you some bread. Eat a bite, boy. You'll feel better."

Jody fumbled blindly in the sack and pulled out the parcel of pancakes. The brierberry jelly was tart and cool on his tongue. He was ashamed to have it taste so good. He bolted several of the cakes. He handed some to his father.

"Rations is mighty comfortin'," Penny said.

It was good to clear the swamp at last and come into the open pine woods. Even the scrub that followed after a mile or two, seemed light and penetrable. Pushing through the low scrub oaks, the scrub palmettos, the gallberry bushes, and the ti-ti was less laborious than crossing the swamp. It was late afternoon when the high pines of Baxter's Island showed ahead. The procession filed down the sand road from the east and into the clearing. Rip and Perk ran ahead to the hollowed cypress watering trough kept for the chickens. Ma Baxter sat rocking on the narrow veranda, a mound of mending in her lap.

"A dead dog and no bear, eh?" she called.

"Not dead yit. Git me water and rags and the big needle and thread."

She rose quickly to help. Jody trailed her disconsolately. "You kin fetch the water," she told him, and he scurried to the kettle.

Penny returned to the veranda with an armful of crocus sacks to make a bed for the hound. Ma Baxter brought the surgical equipment. Penny sewed the two deepest cuts and rubbed pine gum into all of them.



Old Julia yelped once, and then was silent. A rib, he said, was broken. He could do nothing for that, but if she lived, it would mend. Penny gathered her up, bed and all.

"I'll not leave her alone in the shed tonight. Fetch me cold water, Jody."

He carried her to Jody's room and laid her in the corner on the pile of sacking. She would not drink, or could not, and he opened her mouth and poured water down her dry throat.

"Leave her rest now. We'll go do our chores."

The clearing possessed this evening a strange cozi-ness. Jody gathered the eggs from the haymow, milked the cow, and cut wood for his mother. Ma

Baxter cooked supper of poke-greens and dried cow-peas. She fried a frugal slice of the fresh pork.

"A piece o' bear meat'd go mighty good tonight," she lamented.

Jody was hungry, but Penny had little appetite. He left the table twice to offer Julia food, which she rejected. Ma Baxter rose heavily to clear the table and wash the dishes. She asked for no details of the hunt. Jody longed to talk of it, to cast away the spell of the tracking, and the fight, and the fear that had struck him. Penny was silent. No one noticed the boy, and he dipped deeply into the dish of cowpeas.

The sun set red and clear. Shadows lay long and black in the Baxter kitchen.

Penny said, "I'm wore out. I could do with bed."

Jody's feet were raw and blistered from the cowhide shoes.

"Me, too," he said.

"I'll set up a whiles," Ma Baxter said.

Penny and Jody went to their room. They undressed on the side of the narrow bed. There was room enough for the two thin bodies. The red faded from the west, and the room was dusky. The hound slept, and whimpered in her sleep. The moon rose, and the small room lay in a silver brightness. Jody's knees twitched.

Penny said, "You wakeful, son?"

"I cain't stop walkin'."

"We went a fur piece. How you like bear-huntin', boy?"

"Well——" He rubbed his knees. "I like thinkin' about it."

"I know."

"I liked the trackin' and the trailin'. I liked

seein' the saplin's broke down, and the ferns in the swamp."

"I know."

"I liked old Julia bayin' now and agin——"

Father and son lay in silence.

"If the wild creeturs'd only leave us be," Penny said.

"I wisht we could kill 'em all off," Jody said. "Them that steals offen us and does us harm."

"'Tain't stealin', in a creetur. A creetur's got his livin' to make, and he makes it the best way he kin. Same as us. Hit's panther nature and wolf nature and bear nature to kill their meat. County lines is nothin' to them, nor a man's fences. How's a creetur to know the land's mine and paid for? How's a bear to know I'm dependin' on my hogs for my own rations? All he knows is, he's hongry."

"A creetur's only doin' the same as me when I go huntin' us meat," Penny continued. "Huntin' him where he lives and beds and raises his young uns. Hit's a hard law, but it's the law. 'Kill or go hongry.'"

Yet the clearing was safe. The creatures came, but they went away again. Jody began to shiver and could not tell why.

"You cold, son?"

"I reckon."

He edged closer to his father. His father was the core of safety. His father swam the swift creek to fetch back his wounded dog. The clearing was safe, and his father fought for it, and for his own. A sense of snugness came over him, and he dropped asleep. He awakened once. Penny was crouched in the corner in the moonlight, ministering to the hound.



An Indian Summer Day on the Prairie

by VACHEL LINDSAY

IN THE BEGINNING

THE sun is a huntress young,
The sun is a red, red joy,
The sun is an Indian girl,
Of the tribe of the Illinois.

MIDMORNING

The sun is a smoldering fire,
That creeps through the high gray plain,
And leaves not a bush of cloud
To blossom with flowers of rain.

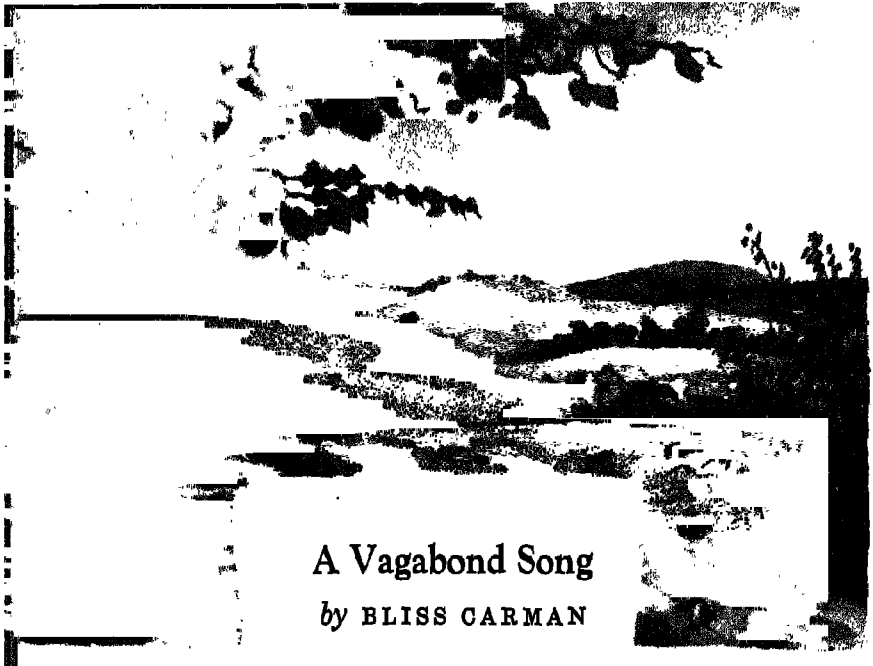
NOON

The sun is a wounded deer,
That treads pale grass in the skies,
Shaking his golden horns,
Flashing his baleful eyes.

SUNSET

The sun is an eagle old,
There in the windless west,
Atop of the spirit-cliffs
He builds him a crimson nest.





A Vagabond Song

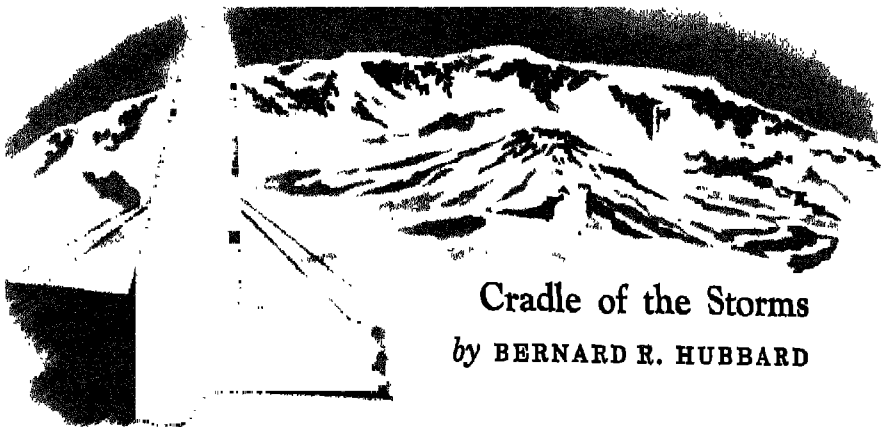
by BLISS CARMAN

THERE is something in the Autumn that is native to
my blood—

Touch of manner, hint of mood;
And my heart is like a rhyme,
With the yellow and the purple and the crimson keep-
ing time.

The scarlet of the maples can shake me like a cry
Of bugles going by.
And my lonely spirit thrills
To see the frosty asters like smoke upon the hills.

There is something in October sets the gypsy blood
astir;
We must rise and follow her,
When from every hill of flame
She calls and calls each vagabond by name.



Cradle of the Storms

by BERNARD R. HUBBARD

WE WERE in the comfortable sitting room of the superintendent of the Harris Cannery at False Pass, down toward the tip of the Alaska Peninsula, awaiting the arrival of Frank Dorbandt, daredevil Alaskan aviator. He had promised to land me inside Aniakchak, an erupting volcano three hundred miles further up the Peninsula.

Herb Larison, the mechanic who was to accompany me on this trip, had just brought in a list of equipment which he had finished checking, when we caught the sound of Dorbandt's big monoplane directly overhead. The moment I had been looking forward to so eagerly was at hand.

"Frank," I asked, when we had exchanged greetings, "I've just been wondering where you will get your weather reports for your trip to Aniakchak."

Dorbandt snorted. "My weather reports! Where would they come from up here, and what good would they be when you got them? The Bering Sea changes too suddenly and too fast for weather reports. In this country a pilot just figures out his chances as he goes."

Dorbandt was right. Here the Pacific Ocean and the warm Japanese current lie close to the Bering

Sea and the cold Arctic current, separated only by the narrow festoon of Aleutian Islands and the Alaska Peninsula. The result is that rapidly condensing masses of air at different temperatures are constantly being sucked through the narrow passes of the high mountains, reaching storm intensity very quickly. Usually this section is foggy or misty or windy, and copious rains fall throughout the year. Long study has convinced me that this is the birthplace of the storms of the northern hemisphere.

In a short time preparations for the trip were under way. Herb Larison had gone to work as soon as the big seaplane had come to rest on the little lagoon near by. Already he had filled the tanks with gas and checked the engine, while others helped to get my equipment aboard. Sleeping bags, food, cameras, and film were stowed away. The weather—cloudy, windy, and rainy—was none too favorable for flying.

We were undertaking a real adventure fraught with many an unknown peril, over a bleak desolation where there is hardly one human being for each hundred square miles. The Bering Sea is always treacherous and sudden in its storms. But the flight meant that I would be able to gather valuable scientific data, and I was determined to go through with it.

The motor roared as Dorbandt warmed up the engine. After a moment, we taxied out. Then we speeded up in the water and soared into the air, circling for altitude. It was not long before we were over the Bering Sea. Fitful bursts of wind rocked the plane, and murky clouds blanketed the mountains. A somber spot ahead—where black sky touched black earth in a curtain of storm—made us a little apprehensive.

The black area was more than fifty miles away, but

as miles and minutes passed, it came ever closer. It was a storm center all right. The Bering Sea has a habit of forming compact, concentrated storms. It tightens them up like a coiled spring until all their fury is leashed, then flings them into space. They expand as they go, hurtling along to lash sea and land alike with their fury. Gales of a hundred miles an hour have often been registered in this desolate zone.

Just as I began to wonder if Dorbandt would try a forced landing in one of the many lagoons and lakes below and wait for the storm to pass, he settled that question by turning around and shouting, "Strap yourself in your seat. It's going to be rough." He was going to try to ride through the storm!

And ride through it he did. The wind made a plaything of the plane, pushing it up and beating it down, hurling it sideways, shaking it as a cat does a mouse. The powerful engine was in perfect condition and roared defiance at the mighty Bering blast. Often we were a scant twenty feet from the ground. It seemed a long time in the jerky cabin of the big plane, though actually it was just a few minutes. Presently there was more light ahead, and soon the squalls that buffeted the plane grew less intense and came at longer intervals. Finally we rose to a convenient altitude and left the main storm center behind.

I had taken off my safety belt and was getting my motion-picture camera ready to shoot any scenic effects that might come with the clearing sky, when suddenly Dorbandt swerved the plane into a sideslip, nosed it over, and started some erratic plunging through the air—and I piled up on the floor clutching the back of a seat! Just as I regained my feet and was

examining my camera for damages, we suddenly changed direction, and again I was thrown to the floor as the plane pitched from side to side in a series of crazy gyrations. This time my ruffled temper got the better of me.

"What's the matter with you?" I yelled.

"I'm doing some scientific work," Dorbandt answered, bringing the plane around with a swish that made the struts sing. "Look at the thousands of geese below us. I'm chasing them to find out how fast they fly. *That's* scientific!"

I looked, and saw what he meant. The graceful birds had come to Alaska for their spring season, and thousands of them were forming their flying wedges over, under, and around us. Dorbandt was maneuvering into one group after another, trying to race along with them. But, as soon as the plane approached, the geese would scatter. Finally my pilot got what he wanted. Three big honkers flew just



ahead and to one side of the plane and kept their course.

Dorbandt slowed down the plane until it stayed even with them. "There!" he shouted exultantly. "Look at the clock—eighty miles an hour!" And, sure enough, the speedometer showed eighty miles an hour for our companions on this wild-goose chase.

Soon we could see Aniakchak, a scant sixty miles distant by air. Aniakchak, the world's largest active volcano, was our objective, and the purpose of our flight was to plunge into its fiery maw. As the hour for our descent neared, our nerves began to tingle. The bright Alaska sun shone over us, and the myriad lakes and meandering streams of the Bering tundra glinted below. But the huge volcano that loomed ahead seemed to be blanketed by the clouds that rolled around its rim. Would the crater be clear within and allow us to plunge down in what we hoped was to be the first successful landing ever made in an active volcano? We would soon know.

We were now a few thousand feet above the Aniakchak crater. At first we could not see it, for a heavy blanket of clouds covered the mountain. Then a depression in the cloudbank indicated the outline of the crater. We dived until the air got bumpy, then circled over Aniakchak, looking for a hole in the clouds through which to dive. But none was to be seen. The mighty crater, robbed of all its awesome majesty by the pall of white, looked like a huge washtub with soapsuds running over its sides.

Disappointed, we turned the plane toward the village of Meshik on the Bering Sea and landed in a lagoon, intending to wait until the mountain cleared and then try again. This "village" consists of two

native families, who received us kindly and helped us anchor the plane. Later we went into an empty shack and spent the night.

Next day trouble began in earnest. As usual on the Bering Sea, the weather got worse instead of better. A terrific gale sprang up, and it required a lot of work in drenching rain to keep the plane jockeyed around so that it could ride the storm. After two days and nights of this, clear weather came again. The rudder of the plane had been bent in the storm and part of the wing tip ripped, but neither injury was serious. So we climbed in, took off, and again started for Aniakchak. The grim outline of the great crater loomed ahead as we flew above the miles of black desolation caused by the eruption of Aniakchak the year before. I busied myself with my equipment—two movie machines and two still cameras. I was determined not to miss recording a single detail of this thrilling experience. Several cans of movie film were unsealed and set on the floor of the plane within easy reach for quick reloading.

By this time we were near the crater rim. Then Dorbandt executed a maneuver that surprised me. He soared up into the air until we could get one inspiring and awful glance down into the great maw of Aniakchak yawning below.

We were right over the Pit of Hades, which had been formed in the bottom of the crater when the volcano had erupted the year before. Ominous clouds of steam and lethal gases still curled from its black, gaping depths.

Dorbandt rose high into the air, and I held my breath and prepared myself for one of his famous power dives. To my astonishment, he turned the

plane's nose away from the crater and began to lose altitude rapidly.

What did this mean? Had he noted some element of danger present, and was he going to give up the attempt to land in the crater? Was I to be disappointed? Twice before had I been flown over Aniakchak, and twice had my cautious aviator turned away after that one awful glance into the black chaos, fearing that volcanic gases were too strong and would smother the engine. I recalled that for safety we had flown several thousand feet above the crater on previous attempts. But Dorbandt was now coming down close to the ground. There was a look of grim determination on his face as he turned the plane again and began climbing the cone to the rim. Then I understood what his intention was. An airplane in the air is at the mercy of the wind in confined spaces. In a volcano like Aniakchak many different currents and eddies are present. Dorbandt was feeling them out before diving recklessly into them.

The perpendicular walls of Aniakchak's big crater are, in places, two to three thousand feet high, and continuous downdrafts of air pour over these walls to the bottom of the volcano. In such currents a plane would be sucked down like a boat over a waterfall. Dorbandt was equal to the occasion. When the plane was a few hundred feet above the rim of the volcano, he turned up the engine to its top speed and entirely offset all danger of downdrafts by diving low into Aniakchak at 135 miles an hour. With a thrill I realized that we were inside the volcano and that the plane was under perfect control!

We circled inside the great bowl in a ride that I shall never forget. What had taken two trips of

the Geological Survey and three of my own to do in the way of mapping and exploration, Dorbandt checked up in a few minutes. He pointed to the instruments on his control board to indicate that my former measurement of the circumference—twenty-one miles—now checked with the speedometer. The figure for the length of the lake on the bottom of the crater—two and a half miles—was also approximately correct. Then we almost settled on the ground so as to read the altimeter preparatory to ascertaining the height of the walls. To take the second reading we sighted along the wing, held steadily like a spirit level even with the top of the cliff. Three thousand one hundred feet we measured one cliff from the bottom of the crater to the top.

I was buzzing the cameras the whole time, loading in feverish haste and getting all the pictures I could. Herb Larison calmly gathered the taken film as fast as I threw it out.

"Now I'll show you that gases don't affect airplane engines," Dorbandt bellowed at me over the roar of the engine. "I'm going to dive into the big pit," and he turned the plane toward the black smoking Pit of Hades at the bottom of the crater.

"You value your hide as much as I do mine," I yelled back. "Go to it!"

Dorbandt grinned. At the speed he was going, even dangerous gases would not have time to affect anything. But it was a unique sensation to see the burning pit fairly leap up toward us.

Like a moth singeing its wings in the world's largest candle, our tiny plane was rushing to seeming destruction. The struts sang as Dorbandt leveled off and dashed harmlessly through the steam. The next



stunt Dorbandt tried, however, was almost one too many. He aimed the plane at a crack in the crater walls, called the Gates, through which the Aniakchak River dashes out of the mountain in a series of foaming white cascades. Hardly were we in this cleft when unexpected air currents began to push the plane around.

We were forced lower and lower until the walls were dangerously near our wing tips, and the cascading waters were close to our pontoons. We had to slow down to a speed that was far from safe.

Dorbandt looked worried. I had visions of a crack-up, and I certainly did a lot of praying in the next few seconds. I never could quite figure out what sort of maneuver Dorbandt made in this narrow gorge; it would involve higher mathematics. As near as I can describe it, he caught an air current that enabled him to make a sort of bank, loop, and wing-over that left us pointing into the crater again.

We lost no time getting away from the perilous Gates. The lake was below us. A simple bank and sideslip, and our pontoons splashed on the water. We had made it: the first successful landing in an active volcano! I glanced at the clock. That thrilling ride had taken just fifty minutes. We taxied to shore, and all three got out.

"I told you I'd land you in Aniakchak, didn't I?" Dorbandt shouted.

Meanwhile, Herb Larison, the matter-of-fact mechanic, had a practical suggestion ready. "Let's eat!" Thereupon he opened up the food sack, while Dorbandt got the gasoline stove going.

I did not want to spend precious time eating; so I climbed up to various points of vantage and took pictures. In our mad flight inside the volcano I had noticed a new steaming area on the opposite side of the bowl that had been entirely inactive the year before.

"Shall I have time to go over to that big steam vent?" I asked Dorbandt.

"Sure," he answered. "Herb and I will go with you. We've got lots of time."

A few miles away across the floor of the crater, billowing clouds of steam made a graceful column some three thousand feet high. We started to skirt

the shores of the lake and make our way toward the active area.

"What's this?" Dorbandt asked, pointing to a spring bubbling from the ground amid an exotic surrounding of highly colored rocks and mud.

The steaming area grew larger as we approached. When eventually we got as near as safety would permit, we found a large mound of broken lava and mud out of which steam under pressure was roaring from numerous vents and billowing thousands of feet into the air.

"I'd like to have all that power in my engine," Dorbandt remarked.

"You may need it yet!" Larison rejoined, little suspecting how truly he spoke.

On our return to the plane, Dorbandt glanced at the gauge in the gasoline tank. I did not like his expression as he read it. He rocked the wing; the needle oscillated and returned to the spot where it had stood before. Then he turned to me.

"You know this country, Father Hubbard. How far is it to the nearest place where we can get gas?"

"A couple of weeks' walk," I answered. "Why? What's wrong?"

"It will take a half-hour to spiral up out of this hole, and we have about enough gasoline left for twenty minutes of flying." Then turning to Larison, he asked, "Herb, did you fill up the tanks when we left False Pass?"

"I certainly did," replied Larison, somewhat heatedly. "But if you *will* fly all over the country chasing geese, no wonder you run short of gas."

After landing a plane inside a volcano, taking pictures, gathering priceless weather data, and checking

measurements of the world's largest active volcano—to be unable to return safely for lack of gas would be a humiliating anticlimax indeed! I wondered what Dorbandt was going to do. Larison, wisely, remained silent. Then Dorbandt made up his mind. "Climb in," he ordered briskly, and we obeyed.

A wind was blowing from the crater rim above us toward the erupting pits. In an airplane, just as a head wind impedes flying progress and a tail wind helps it along, so an updraft pushes the plane up. The wind that poured over the rim in a downdraft naturally went across the crater and rushed out of the other side in a strong updraft. For an experienced aviator like Dorbandt this phenomenon seemed made to order. He headed straight for the opposite wall near the steam rising from the active pits.

At first I thought he would crash into the cliff. But he was feeling for the updraft, and presently he got its lift—perilously close, it seemed to me, to the jutting rocks. With a surge the plane shot straight up several hundred feet. When the helpful gust of wind died away, Dorbandt turned on his wing tip without losing elevation and dashed straight into the column of steam. The rising air took the plane along with it. A few such maneuvers and the last spurt sent us shooting out over the top of the crater.

"Look!" exclaimed Dorbandt triumphantly, pointing to the clock. "It's just three minutes from the time we took off from the lake in the bottom of that volcano!"

Yes, the volcano itself had literally belched us forth, and we still had seventeen minutes of gasoline left—enough to reach the Bering Sea and refuel with the aid of a friendly fishing boat!

*In the Service
of Mankind*





Gutenberg and His Printing Press

by RUPERT SARGENT HOLLAND

ONE evening after supper as John Gutenberg and his wife were sitting in the room behind his jewelry shop, he chanced to pick up a playing card. He studied it very carefully, as though it were new to him. Presently his wife looked up from her sewing and noticed how much absorbed he was. "Prithee, John, what marvel dost thou find in that card?" said she. "One would think it the face of a saint, so closely dost thou regard it."

"Nay, Anna," he answered thoughtfully, "but didst thou ever consider how this picture was made?"

"I suppose it was drawn in outline and then painted, as other pictures are."

"But there is a better way," said Gutenberg, still studying the playing card. "These lines were first marked out on a wooden block, and then the wood was cut away on each side of them, so that they were left raised. The lines were then smeared with ink and pressed on the cardboard. This way is shorter, Anna,

than drawing and painting each picture separately, because when the block is once engraved it can be used to mark any number of cards."

Anna took the playing card from her husband's hand. "It's an unsightly creature," she said, studying the face on the card, "and not to be compared with our picture of good St. Christopher on the wall yonder. Surely that was made with a pen?"

"Nay, it was made from an engraved block, just as this card was," said the young lapidary.

"St. Christopher made in that way!" exclaimed his wife. "Then what a splendid art it must be, if it keeps the pictures of the blessed saints for us!"

The picture of the saint was a curious colored wood-cut. Under it was an inscription in Latin and the date 1423.

"Yes, thou art right, dear," Gutenberg went on. "Pictures like that are much to be prized, for they fill to some extent the place of books, which are so rare and cost so much. But there are much more valuable pictures in the Cathedral here at Strasbourg. Dost thou remember the jewels the Abbot gave me to polish for him? When I went to get them, he took me into the Cathedral library and showed me several books filled with these engraved pictures, and they were much finer than our St. Christopher. The book I remember best was the *Bible for the Poor*, which is a collection of scenes from the Old and New Testaments. It has forty of these pictures in it."

"That is truly wonderful, John!"

John leaned forward, his keen face showing unusual interest. "The forty pictures were made by pressing engraved blocks of wood on paper, just as were the St. Christopher and the picture on this playing card.

There are Latin explanations and rhymes at the bottom of each page."

"And all that is carved on wood first?" said Anna, doubtfully. "It sounds almost like a miracle."

"Aye. But dost thou see, Anna, how much better these blocks would be than the slower way of copying every letter of a book by hand? When they're once cut, many copies of a book can be printed from the same blocks as easily as one."

"Aye," answered his wife, "and they will be cheaper than the works written out by the scribes, but still be so costly that whoever can make them ought to grow rich from the sale. If thou canst do it, it will make thy fortune. Thou art so ingenious. Canst thou not make a *Bible for the Poor*?"

"Little wife, thou must be dreaming!" But John Gutenberg smiled, for he saw that she had discovered his very thought.

"But couldst thou not?" Anna persisted. "Thou art so good at inventing better ways of doing things."

Gutenberg laughed and shook his head. "I have found new ways to polish stones and mirrors," said he, "but those are in my line of work. This is quite outside it and much more difficult."

Nothing more was said on the subject that night, but Anna could see, as day followed day, that her husband was planning something. She felt very certain that he was thinking out a way of making books more quickly than by the old process of copying them word for word by hand.

A few weeks later the young lapidary surprised his wife by showing her a pile of playing cards. "See my handicraft," said he. "Aren't these as good as the one I showed thee?"

She looked at them, delight in her eyes. "They are very much better, John. The lines are much clearer, and the color is brighter."

"Still, that is only a step. It is of little use unless I can cut letters, and press them on vellum as I did these cards. I shall try thy name, Anna, and see if I cannot engrave it here on wood. The chief difficulty comes from having to carve the letters in reverse, so that when the block is turned over for the impression, the name will appear as it should."

He took a small wooden tablet from the worktable in his shop, and, marking certain lines upon it, cut away the wood so that it left a stamp of his wife's name. Brushing ink over the raised letters he pressed the wood upon a sheet of paper. Then, lifting it carefully, he showed her the name *Anna* printed upon the paper.

"Wonderful!" she cried. "The letters have the very likeness of writing!"



Encouraged by his wife's great interest, and spurred on by the passion for invention, Gutenberg now set himself seriously to study the problem of engraving. First of all, he found it very difficult to find the right kind of wood. Some kinds were too soft and porous; others split easily. Finally he chose the wood of the apple tree, which had a fine grain and was firm enough to stand the process of engraving. Another difficulty was the lack of proper tools; but he worked at these until his box was supplied with a stock of knives, saws, chisels, and gravers of many different patterns. Then he started to draw the portrait of St. Christopher.

At his first attempt he made the picture and the inscription that went with it on the same block, but as soon as he had finished it, a better idea occurred to him. The second time he drew the picture and the inscription on separate blocks. "That's an improvement," he said to his wife, "for I can draw the picture and the letters better separately, and if I want, I can use different colored inks for printing the two parts." Then he cut the wood away from the drawings and, inking them, pressed them upon the paper. The result was a much clearer picture than the old "St. Christopher" had been.

He studied his work with care. "So far, so good," said he, "but it's not yet perfect. The picture can't be properly printed without thicker ink. This flows too easily. Even using the greatest care, I can hardly keep from blotting it."

He had to make a great many experiments to solve this difficulty of the ink. At last he found that a preparation of oil was best. He could vary the color according to the substances he used with this. Umber

gave him lines of a darkish brown color; lamp-black and oil gave him black ink.

When his ink was ready, he turned again to his interested wife.

"Now thou canst help me," said he. "Stuff and sew this piece of sheepskin to make it into a round ball, while I get the paper ready for the printing."

Anna had soon done as he asked. Then Gutenberg added a handle to the stuffed ball. "I need this to spread the ink evenly upon the block," said he.

He had ground the ink upon a slab. Now he dipped the sheepskin ball in it and spread the ink over the wood. Then laying the paper on the wood, he pressed it down with the polished handle of one of his new graving tools. He lifted the paper carefully. The picture that was impressed on it was a great improvement over his first attempt. "This ink works splendidly!" he exclaimed in delight.

"Now I shall want a picture of St. Christopher in every room in the house," said Anna.

"But what shall I do?" he added. "I can't afford the time and money to make these pictures unless I can sell them in some way."

"And canst thou not do that?"

"I know of no way at present; but I will hang them on the wall of the shop, and perhaps some of my customers will see them and ask about them."

The young lapidary was poor, and he had spent part of his savings in working out his scheme of block printing. He could give no more time to this now, but he hung several copies of the "St. Christopher" in his front room.

A few days later it happened that several people, calling at the shop to buy gems, chose to purchase

pictures instead. Anna was very much pleased by the sales and told her husband so at supper that evening. But he was less satisfied. "In spite of the sales, I have lost money today," said he. "Those who bought the prints had meant to buy jewels and mirrors, and if they had done so, I should have made a bigger profit. The pictures take people's attention from the gems, and so hurt my business."

"But may it not be that the printing will pay thee better than the jewels, if thou wilt keep on with it?" suggested the hopeful wife. "How soon shalt thou go to the Cathedral with the Abbot's jewels?"

"As soon as I have finished the polishing. Engraving these blocks has kept me back even in that."

"When thou dost go, take some of thy prints with thee," begged Anna, "and see what the Abbot has to say about them."

By working hard, Gutenberg had the Abbot's jewels finished two days later, and he took them and several of his prints to the Cathedral. He was shown into the library, where often a score of monks were busied in making copies of old manuscripts. He delivered the jewels to the Abbot and then showed him the pictures.

"Whose handiwork is this?" asked the Father.

But Gutenberg was not quite ready to give away his secret, and so he answered evasively, "The name of the artisan does not appear."

"Where didst thou obtain them?" asked the Abbot.

"I pray thee let me keep that also a secret," answered Gutenberg.

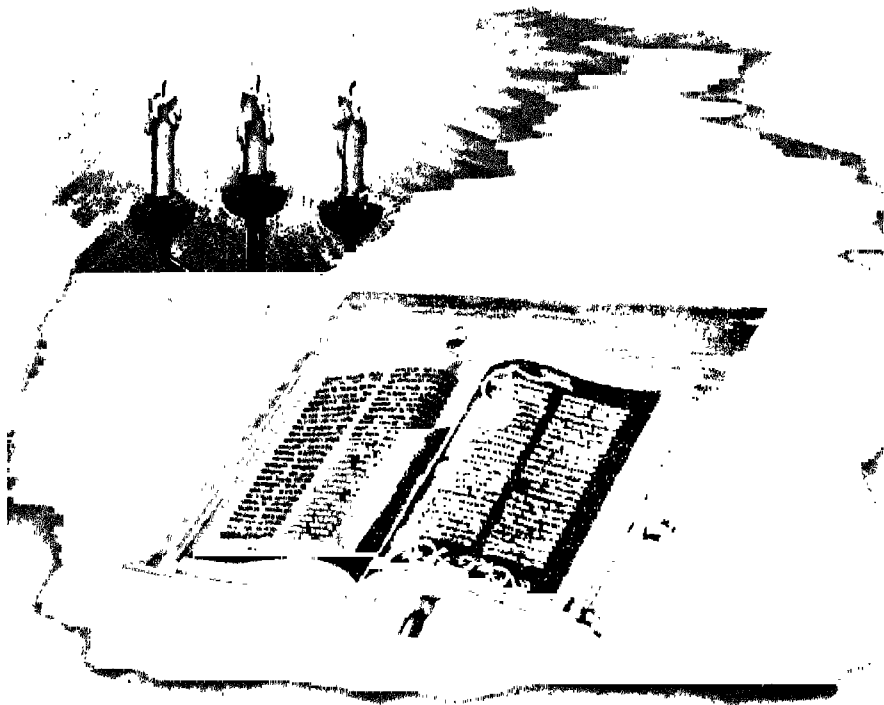
The Abbot looked them over carefully. "I will take them all," said he. "They will grace the walls of our library."

The young jeweler was very much pleased, and hurried home to tell his wife what had happened. She was delighted. "Now thou art in a fair way to grow rich," said she.

But Gutenberg was by nature cautious. "We must not forget," he answered, "that the steady income of a regular trade is safer to rely on than occasional success in other lines."

On his next visit to the Cathedral, Gutenberg returned home with a big package. He unwrapped it and showed Anna a large volume.

"See," said he, "this is the *History of St. John the Evangelist*. The Abbot gave it to me in return for some more copies of my *St. Christopher*. It is written on vellum with a pen, and all the initial letters are illuminated. There are sixty-three pages, and some



patient monk has spent months, aye, perhaps years, in making it. But I have a plan to engrave it all, just as I did the picture."

"Engrave a whole book! That would be a miracle!"

"I believe I can do it. And when once the sixty-three blocks are cut, a block to a page, I can print a score of the books as easily as one copy."

"Then thou canst make books as well as the monks! And when the blocks are done, it may not take more than a day to make a book, instead of months and years."

So John Gutenberg set to work with new enthusiasm and started to cut the letters of the first pages of the *History of St. John*. Night after night he worked at it, until a great pile of engraved blocks was done.

In time the blocks were all finished. "Now I can help," said Anna. "Thou must let me make the impressions."

"So thou shalt," her husband answered. "Tonight we will fold and cut the paper into the right size for the pages and grind the umber for ink. Tomorrow we will begin to print the leaves."

The following day they took turns making the impressions. Page after page came out clear and true. Then Anna started to paste the blank sides of the sheets together, for the pages were printed only on one side. In a week a pile of the *St. John History* was printed and bound and ready to be sold.

The jeweler had little time to offer the books to the wealthy people of the city, and so he now engaged a young student at the cathedral, Peter Schoeffer by name, to work for him. The first week he sold two copies, and one other was sold from the shop. This made a good beginning, but after that it was more

difficult to find buyers, and Gutenberg began to grow doubtful of the venture.

The poor people of Strasbourg could not read, and could not have afforded to buy the books in any event; the nobility were hard to reach; and the clergy, who made up the reading class, were used to copying such manuscripts as they needed. But this situation did not prevent Gutenberg from continuing with his work.

Whenever he printed a new book, Gutenberg took it to the cathedral to show the priests. One day when he carried one of his books there, he found the Abbot in the library looking over the manuscripts of several monks.

"Good morning, my son," said the Abbot with a smile. "Hast thou brought more of thy magic books?"

"It is not magic, Father; it is simply patience that has done it," said Gutenberg, handing the Abbot a copy of his latest book.

"Thanks, my son. It is always a pleasure to examine thy manuscripts."

The Abbot studied the book closely. Then he asked, "Are these books really made with a copyist's pen?" He cast a searching glance at the lapidary.

Gutenberg, much embarrassed, had no answer for him.

"It is as I guessed," said the Abbot. "They are made from blocks, as the St. Christopher was."

The Abbot smiled at the look of dismay on Gutenberg's face. "Have no fear," he added. "It may be that I can supply thee with better work for thy skill. We need more copies of the *Bible for the Poor* for our use here, and I have no doubt thou couldst greatly improve on the best we have."

"I should like to do it," said Gutenberg, "if there were not too much expense."

"The priests will need many copies," the Abbot assured him. "And thou shalt be well paid."

So the young printer agreed to undertake this new commission. It meant much to him to have secured the patronage of the Abbot, for this would be a high recommendation of his work and bring him to the notice of wealthy people who might buy his books.

Gutenberg took the Abbot's copy of the *Bible for the Poor* and started work upon the wooden blocks. Many pictures had to be copied, and so he engaged two wood engravers who lived in Strasbourg to help. Even so, it took them months to finish the book. But when it was printed and bound and a copy shown to the Abbot, he was delighted with it. "Thou hast done nobly, my son," said he, "and thou shalt be well paid."

Gutenberg returned home with the money, and showed it delightedly to his wife. "I knew thou wouldst triumph," said she. "Only to think of a real *Bible for the Poor* made by my John Gutenberg. We shall see wonderful days!"

Now fortune grew more favorable. *The Bible for the Poor* sold better than the other books had done, and they next printed the *Canticles*, or *Solomon's Song*. This was impressed, as the others had been, on only one side of the page and from engraved wooden blocks. Then Gutenberg thought he would like to print the entire Bible. Anna favored this, and he started to figure out how long the work would take.

"There are seven hundred pages in the Bible," said he. "I cannot engrave more than two pages a month, working steadily, and at such a rate it would take me nearly thirty years to make blocks enough to print the Holy Book, and I should be blind before my work was half done."

"But couldst thou not divide the work with the helpers?"

"Yes, if only I could persuade them to attempt so big a work. They want to try smaller books, for they say my new process is hardly better for making a large book than the old method of copying. It may be that I can get them to print the Gospels gradually, one book at a time."

Though the workmen were now growing more weary and disheartened with each new volume they undertook, Gutenberg would not give up. He persuaded them to start cutting the blocks for the Gospel of St. Matthew. But as he worked with his knives, the helpers grumbled. At last he had the first block nearly done. Then his hand slipped, the tool twisted, and the block was split across. The other men looked aghast. So much work had gone for nothing.

Gutenberg sat studying the broken block of wood. As he studied it, a new idea came to him. Picking



up his knife he split the wood, making separate pieces of every letter carved on it. Then he stared at the pile of little pieces that lay before him like a bundle of splinters. He realized that he was now on the trail of a greater discovery than any he had yet made, for these separate letters could be used over and over again, not only in printing one book, but in printing hundreds.

Taking a fresh block, he split it into little strips, and cutting these down to the right size, he carved a letter on the end of each strip. This was more difficult than cutting on the solid block, and he spoiled many strips of wood before he got a letter that satisfied him. But finally he had made one and then another and another, until he had all the letters of the alphabet. He was careful to cut the sticks of the proper width, so that the letters would not be too far apart when used for printing. When they were done, he showed them to the others and called them *stücke*, or pieces of type. They soon saw what a great step forward he had made.

The first words he printed with type were *bonus homo*, "a good man." He took the letters that spelled the first word, and putting them in their proper order, tied them together with a string. Since he had only one letter o, he had to stop and cut two more. Then he made a supply of each letter of the alphabet, and put type of each letter separately in little boxes, to keep them from getting mixed. Thus he made the first font of movable type known to man.

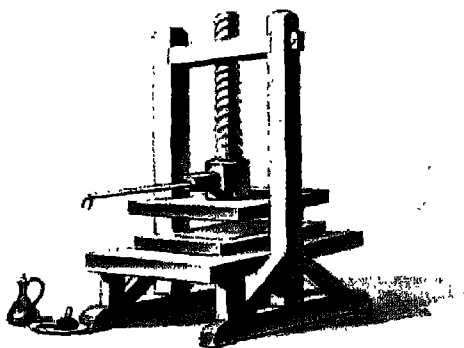
As he experimented with this first type, he made another improvement. He found that it was hard to keep the letters tight together so that he could ink them and print from them. So he cut little notches

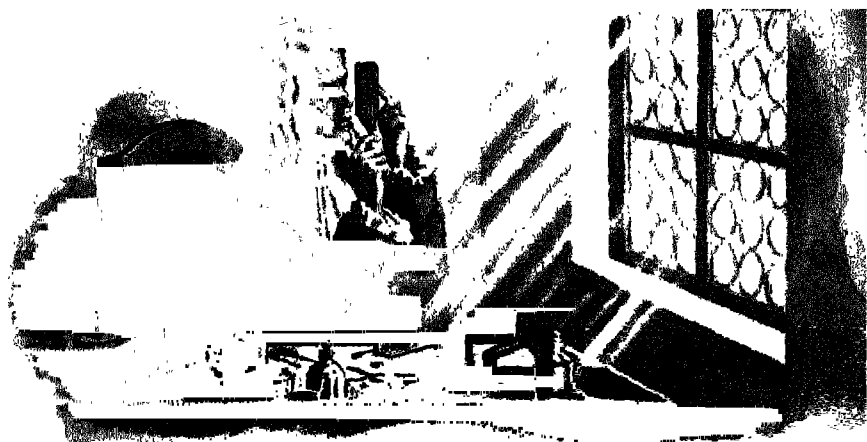
in the edges of the type, and by fastening linen thread around the notches in the outside letters of each word, he found that he could hold a word as tightly together as if all the letters in it were cut on a single block.

The cutting of the type and the studying out of new and better ways of holding it together took a great deal of time. Meanwhile the sales of gems and mirrors had fallen off. The helpers did not have the master's skill in holding the letters together, and they grew discouraged as time after time the type would separate just when they were ready to print from it. They wanted to go back to the blocks, but Gutenberg insisted that his new way was the better. At last he hit upon another idea. He decided to make a press that would hold the type together better than a linen thread.

After many patient experiments he finished a small model of a press which seemed to him to combine all the qualifications needed for his work. He took this to a skillful worker in wood and metal, who examined it carefully. "This is only a simple wine press that you want me to make, Master John," said the worker.

"Yes," answered Gutenberg, "it is much like a wine press, but it shall soon spout forth floods of the most abundant and marvelous liquor that has ever flowed to quench the thirst of man."





The Lens Maker of Delft

by ALICE CLARK GILMORE

THE midmorning sun streamed through the round leaded windowpanes and fell in zigzag patterns across the littered worktable of the Dutch lens maker, Mynheer Antony van Leeuwenhoek. In his little shop in Delft, Holland, he was testing a new lens that he had ground. He frowned impatiently as the sunlight struck the lens of the microscope through which he was peering.

"Ach, now the sun, too, interferes," Leeuwenhoek complained good-naturedly, seeking to find a new place for his instrument among the crockery, glass tubes, old rags, and water jars that cluttered the table top.

He pushed a plate of fish tails to one side and once more picked up the flat rectangle of beaten silver which held his lens. Deftly he transferred a drop of liquid from a blue jar to a tiny glass tube which was clamped to his microscope. "Hm-m-m," he muttered thoughtfully to himself. "So. And now for the other one."

He dipped his small sharpened stick into a bottle and let a drop of clear water fall into another tube fastened to a second silver-incased lens.

So intent was he upon his work that he didn't hear the outside door open or see the tow-headed, blue-eyed boy peeping cautiously around it. The boy spoke softly, "May I come in, Mynheer?"

Leeuwenhoek looked up, startled, as if he had forgotten where he was. Then as his eyes adjusted themselves he smiled warmly. "Ah, it is you, Jan Wolke. Come in, come in, lad. But keep those clumping feet of yours from shaking the floor too much. My lenses are fragile things, you know."

Jan tiptoed across the room, walking as carefully as he could in his clumsy wooden shoes. "What have you in the tube now, Mynheer?" he questioned eagerly. "May I look? The last time 'twas a frog's leg you showed me."

"'Tis but a drop of stagnant water now," said Leeuwenhoek with a chuckle, holding out the microscope carefully so that Jan could see through it without touching it. "There, now, have a look."

The boy bent over the lens obediently, but doubt was plain on his face. "I'll see naught but a bubble, I'll wager," he grumbled, squinting shut one eye as he had seen the older man do and applying the other to the lens. "Why, 'tis no more than a gray blur!" he said after a moment.

"Let me hold it closer. 'Tis not level with your eye," said the lens maker, suiting action to word. "And now you will see more than a gray blur, or I will eat those pantaloons of yours, buttons and all!"

Jan looked again, doubtfully, but suddenly his body tensed with excitement. Something was mov-

ing in that drop of water magnified by the microscope! Little jelly-like blobs were scooting this way and that, wiggling and twisting as if they were being poked and prodded by some strange, invisible power.

"Things," he gasped. "Hundreds—of—of——"

"Animalcules," his friend supplied the word gravely. "Those are animalcules, Jan."

The boy looked back at the lens, a puzzled frown wrinkling his forehead. "Are *things* like that always in water—when I wash and drink?" His eyes widened at the thought of how many millions of them he must have swallowed.

The scientist chuckled, and then patiently he began his explanation. Little animals like those seen through the microscope were in all stagnant water and in rain water collected in gutters and cisterns or in open places exposed to the dust-laden wind.

Jan only half listened. The thought of all those wriggling creatures finding their way down his throat was too much.

As soon as the lens maker paused for breath Jan spoke up quickly, "Is there a way to kill them, sir? They're too little to shoot."

"A good question, boy. There's a mind working under that tow-headed thatch of yours," returned the scientist. "And I think I have the answer—boiling. Here, take this same water to the kitchen and boil a potful. Then we shall see if a second experiment proves my answer right."

Jan was only too willing to obey. While he was gone the scientist plucked a grizzled hair from the curls that fell to his shoulders and began studying it carefully through the lens, muttering to himself. At length he took a leatherbound copybook, from the

shelf and entered his observations along with the others for the year 1698.

Then Jan returned, and boy and man peered eagerly through the lens at a drop of boiled water. Not a creature was to be seen. Jan heaved a sigh of relief. At least he knew how to get rid of the little wiggly beasties. Meanwhile Leeuwenhoek was preparing a new subject for examination—a piece of fish tail. But he had no more than got it ready for the lens when there was a great pounding on the door and an angry, red-faced woman burst into the room. Dame Lunter did not leave Mynheer van Leeuwenhoek long in doubt as to the reason for her anger. He, a shopkeeper, was playing like a child with toys, and his shop not open. How could she buy a length of fine linen for her daughter's apron if he did not open his shop? But Leeuwenhoek was not the least disturbed by her rattling tirade. Calmly he pointed to the big iron key hanging beside the door and invited her to open the shop and help herself. And with that offer the good dame had to be content, for Leeuwenhoek was already bent again over the microscope, pointing out to Jan the queer hairlike tubes that connected the fish's veins and arteries.

"Look closely, lad," he urged excitedly. "'Tis proof beyond doubt that blood circulates. The doctors cannot figure how 'tis done, but this lens I have made shows it clearly, as you——"

He did not finish. The large figure of a man in brocaded waistcoat and silk-slashed pantaloons entered the workshop. It was Mynheer De Bloeme, Jan's grandfather and the town burgomaster. "Antony van Leeuwenhoek," he demanded sternly. "Have you cleaned the town hall today?"

The lens maker shook his head. "Not yet, Mynheer Burgomaster. But come look at this fish tail——"

"Fish tail! Pah!" exploded the burgomaster. "Child's play!"

"Child's play?" repeated Leeuwenhoek in mild reproof. "Do you call it useless, then, what my lenses show? Useless, that I have followed in a tadpole the course of the blood from the heart back to the heart, or that I have found that the red corpuscles in man are round, but those in frogs and fishes are square?"

"What good is all that trumpery stuff?" the burgomaster scoffed. "Will it put guilders in your pocket or clean the floor in the town hall? I tell you, Antony van Leeuwenhoek, you will lose your place as janitor of the Delft town hall if you don't mend your ways, and that right speedily."

De Bloeme spun angrily on his heel, only to collide head on with Dame Lunter, who came bursting



through the open doorway full tilt. The startled burgomaster mumbled apologies, but the woman brushed him aside. "Open your shop yourself, Mynheer van Leeuwenhoek," she spluttered. "Or get rid of that big yellow dog growling on the doorstep."

The scientist had been calmly peering through his lens, but now he looked up. "The dog is on the steps, you say? Oh, my good dame, pray secure a flea for me from his back."

Dame Lunter had been upset before, but at the word *flea* she became a living volcano of indignation. "A flea!" she screeched. "A flea! You hear him, Mynheer Burgomaster? He asks me, a clean, respectable Dutchwoman, to get him a *flea*! The man is—is——" Words failed her.

As gently as he could, Antony explained that his interest in the flea was purely scientific, but to no avail. At last he managed to quiet her with the promise that Jan would secure the flea, let her into the shop, and chase the dog away as well.

It was not until Jan returned, fist closed tightly over the captive fleas, that the burgomaster noticed his grandson's presence, and the boy was called to task for his absence from school. Jan opened his mouth to explain, but before he could speak the burgomaster was once more ridiculing the scientist-janitor.

"And what, pray, do you want from these despised, dust-born creatures?" he said, keeping well out of reach as Leeuwenhoek helped Jan transfer the fleas from fist to box.

"Fleas are not produced from dust, any more than eels spring from dew," Leeuwenhoek said earnestly.

"No?" scoffed the burgomaster. "And so the learned Aristotle was wrong when he said so?"

"Even that great Greek scholar could be wrong—as the lenses I make will prove," was the dignified answer. "And wrong again when he holds shellfish to be bred from sand and mud."

The burgomaster looked as if he would explode at the very thought of such heresy from an ignorant man who had studied neither Latin nor Greek. At last, as his grandfather stood glaring at the lens maker, Jan managed to speak.

"But, Grandsire, Mynheer Leeuwenhoek is not ignorant. He is a corresponding member of the Paris Academy of Science, and he's a Fellow of the British Royal Society—I've seen a paper that says so. Show it to him, Mynheer."

Reluctantly the scientist took from its silver case the treasured roll of parchment. The burgomaster had only a glance for the gold and paper seals affixed to the famous document.

"Well," he began, and then suddenly his tone changed. "Very pretty. But it does not explain, my lad, why you are not at school."

"There is no school, Grandsire," Jan answered. "When we went this morning the master dismissed us to watch for Peter the Great. He is passing through Delft today, you know, and 'tis not often one has the chance to see the great Czar of all the Russias."

"The Czar!" exclaimed the burgomaster angrily. "Why did you not remind me sooner? He will be sure to inspect the town hall, and I'll wager it hasn't been cleaned this fortnight. Well, Peter the Great will never say that the town of Delft is dirty. I myself will clean the hall—as for you, Antony van Leeuwenhoek, you are discharged!"

Out he stormed with a great clumping of his thick-

soled leathern shoes. The echo of his tread had scarcely died away when the scientist was once more busy with his microscope.

"We'll put the flea in a bit of fish glue, so—to hold him," Leeuwenhoek explained to the eager Jan. "Now for a good look." In turn the two peered through the lens, completely absorbed by the microscope's revelation. From the street outside came the shrill call of trumpets, shouts, and the rumble of many feet, but the man peering into the microscope did not seem to hear. Jan shifted uneasily. The shouts came plainly now, "Make way! Way for Peter the Great. The Czar of all the Russias passes. Way! Way!" He should at least look at the Czar, Jan thought. It was true, as the schoolmaster had said, that one did not often get to look at a Czar. But then one did not get to look every day at a flea that seemed as big as a dog, either. Jan turned his back on the shouts and waited his chance to peer again through the lens of the microscope.

Suddenly there was a sharp rap on the door and a metallic clattering that could be made only by swords.

"Ho!" came the challenge. "What ho within, Antony van Leeuwenhoek. Peter the Great would enter."

The boy's eyes grew big as if they, too, were being magnified by one of the scientist's lenses. Leeuwenhoek hurried across the room and threw the door wide. A customer might be ignored, a burgomaster defied; but there could be only welcome for the Czar of all the Russias.

"Enter my humble workshop, Your Majesty," he managed to say, and bowed low.

The trumpeters stepped inside; the Czar entered,

surrounded by guards. With a few gracious sentences the monarch put the scientist at his ease, complimenting him on his skill, and assuring him that the whole journey had been routed so that the Czar might see the work of the famous lens maker of Delft.

Now that his beloved work was the subject of conversation, Leeuwenhoek forgot his timidity. "You are most welcome, Your Majesty. Will you look?" he invited. "We examine a flea at the moment."

The royal guest stepped eagerly to the table, while the guards ranged themselves, stiff as bedposts, in a row beside the door.

"Naught but a flea!" exclaimed Peter in wonder. "Why, man, 'tis more like a fearsome wild beast!"

"And perfect in every part as the largest animal that walks the earth," added the eager lens maker.

"Marvelous! Marvelous!" repeated Peter. "Yet how few will believe you. What else may I see?"



Leeuwenhoek hesitated, thinking. "The tadpole," whispered Jan excitedly.

Peter the Great turned to smile at the eager boy. "What have you here, pray—a future scientist?"

"A future scientist and a friend, Your Majesty," replied Leeuwenhoek as he made ready the live tadpole for observation. "I verily believe the most loyal friend in all Delft. There, will you look now, Your Majesty?" he added as the lens was adjusted to his satisfaction. "Think you that the mystery of the circulation of blood is now solved?"

The Czar looked closely. "Blood!" he exclaimed. "Is that really blood passing through those tubes?"

"'Tis blood indeed," affirmed the scientist. "Even the great English physician, William Harvey, could not find out how blood moves. Yet in the lens it shows clearly. This little lens I have ground with my own hands holds the key to more than one mystery."

"You have done the world a service, Antony van Leeuwenhoek. I wish I could but stay to see more. May your work prosper, my friend. I bid you farewell!"

Jan and Leeuwenhoek bowed low as the great man departed. Once more there was the sound of trumpets. Leeuwenhoek returned to his microscope, but Jan lingered at the door, watching the royal procession.

"They are almost to the town hall," he reported. "Grandsire is on the steps, smiling and bowing. Why, why, Mynheer, the procession went right by. They didn't stop. Peter the Great did not even look up."

Leeuwenhoek paused, "I'm sorry—for your grandfather's sake." Then he added, smiling, "But a Czar may look at what he chooses, and if that be a tadpole instead of a burgomaster, well, who am I to say he is wrong?"

The Story of Louis Pasteur

by JOSEPHINE PEASE

ONE DAY in 1831 in Arbois, a small village of France, a nine-year-old boy came running home from school in great excitement. "Father! Mother!" he cried. "Oh, it is terrible. I was passing the blacksmith shop, and I heard a man screaming. Such terrible screams! I did not know whether to stop or to run away. But I could not go on until I found out what was the matter. The blacksmith was burning the man's arm with a red-hot iron from the forge! And all because a dog had bitten him. Why, Father?"

"It was in the hope of curing the mad sickness which will come upon him from the mad dog's bite," answered his father. "The madness and death!"

"But why is that?" asked the boy. "Why will the burning cure him? And why must the man have the madness because a dog has bitten him?"

"I do not know, my son," said his father. "It is very terrible, as you say. And the burning will not save him, either. Nothing can save that poor fellow. There is nothing to be done to cure such evils."

"All the same, I would like to know why," said the boy sadly.

"When you have learned all there is to know at Arbois College and go on to the great *Ecole Normale* in Paris, you will find out the why of many things!"

"Yes, Father!" said Louis, and his eyes shone. For this boy was Louis Pasteur, who was later to become famous the world over for his work in science.

The years passed, and at last the time came when

one of the dreams of Louis Pasteur and his parents was realized. The boy, now a tall young man, was a student at the *Ecole Normale*. Although he had studied for many years since the days of the primary school at Arbois, still he was the same Louis Pasteur who must find out *why* things are true.

Because of his longing to know why, the young man became deeply interested in the study of chemistry. This science tells us what things are made of; it tells us also how things can change in their nature and in size and shape and color. A person who studies chemistry makes chemical experiments in order to see exactly what these changes are.

For three years Louis Pasteur studied at the *Ecole Normale*. After his graduation he taught in Strasbourg and then became professor of science at the university in Lille. Now began the great work of his life.

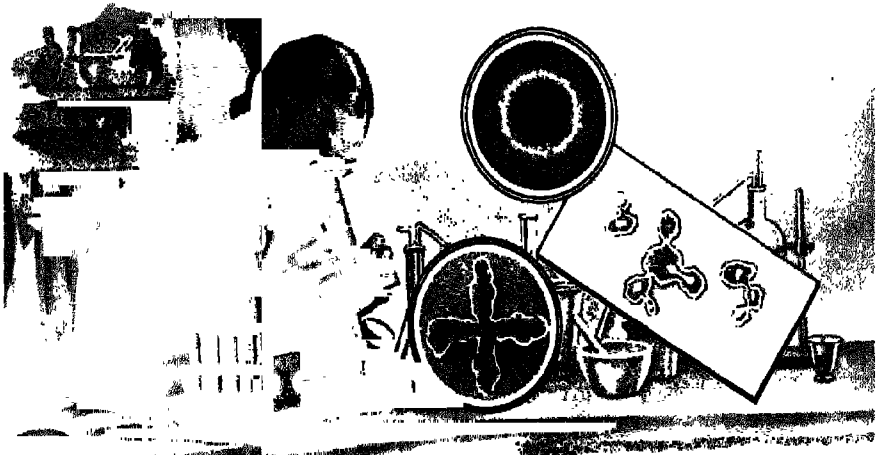
One of the main industries of the city of Lille was the making of wine. The manufacture of wine depends upon a chemical process called fermentation. People had known about fermentation for hundreds of years, but no one had ever understood its causes.

Scientists had found that if yeast is put into sugar and water, fermentation takes place. By looking at yeast through a microscope, the scientists discovered that it is made up of tiny round specks. They saw these specks sending out tiny buds, which grew larger and finally broke off. The new specks were just like those from which they had grown. "Only living things could reproduce themselves in this way," scientists reasoned. "Therefore yeast must be made up of living things." The scientists were correct; we know today that yeast specks are very small plants.

Louis Pasteur studied all the facts that other

scientists had discovered about yeast, reading every scientific article he could find on this fascinating subject. Realizing that no one knew how the yeast could cause fermentation, he set to work to solve the mystery. He studied fermentation in wine caused by yeast. Then he began to study sour milk by examining drops of it under his microscope. He saw tiny bodies much smaller than the yeast plants. He put some of these bodies from the sour milk into another liquid. Watching them carefully, he observed that they grew and divided to form more of the same kind of bodies, just as the yeast had done. These must also be living things, and the souring of milk must be another kind of fermentation. Today we call these small bodies in milk *bacteria*. They, also, are tiny plants.

Now Pasteur was asked to come back to his old school, the *Ecole Normale*, as a teacher. Here he continued his study of fermentation and the tiny plants which cause it. Where did these living things come from? He looked through his microscope at dust from the air. In this dust he found countless tiny bodies such as those he had found in the wine



and the milk. He found them also in water and upon the chairs and tables in his laboratory. When he allowed dust to fall into some clean broth, he found that these particles lived and reproduced, just as the yeast and bacteria had done.

Pasteur called these tiny living things *germs*. He was able to show that each living thing comes from a germ or seed of its own, and that germs are about us everywhere. These discoveries were very important in helping him solve the other great problems that came to him later.

One day in 1864 a wine manufacturer came to call upon Pasteur. "We have heard of your great work in the study of fermentation," he said. "Perhaps you can tell us what is wrong with our wine. In spite of all we can do, it becomes sour and unpleasant to the taste. What do you think is wrong?"

Pasteur promised to do his best to answer that question. But he would have to study the problem carefully. He worked in his laboratory over two years. He examined countless samples of good wine and bad under his microscope. He studied other substances showing chemical changes like the fermentation of wine and milk. By many careful experiments he solved the mystery of how yeast and bacteria could make these changes: they did so when they used the food materials in the wine or milk as a source of nourishment for their growth and reproduction.

Now he was ready to answer the question of the wine manufacturer. "There are tiny plants called germs in your wine," he said. "They came into it from the open air. As they live and grow, they cause a bad fermentation."

"But what can I do to overcome this trouble?"

"My experiments show," replied Pasteur, "that by heating the wine these harmful germs can be killed without hurting the wine."

The grateful wine manufacturer hastened to put Pasteur's statement to the test. He found it true. Soon all the manufacturers of wine were using Pasteur's method of destroying harmful germs, and the wine industry of France was saved.

Great dairies today use Pasteur's discovery to make our milk safe to drink. The milk can be heated enough to kill harmful disease germs without injury to the milk. The process is called *pasteurization* in honor of the man who discovered it.

Now an idea of tremendous importance came to this remarkable scientist. If tiny plants or germs could cause ill effects in wine and milk, perhaps the same thing might be true of animals and people. Pasteur thought and worked over this idea with all the strength and energy he had, and at last he offered to the world the germ theory of disease. This theory, though still unproved at that time, was like a light shining upon the darkness of ignorance which had hindered the work of doctors and surgeons for centuries.

Finally the time came when Pasteur had a chance to prove that his theory of disease was true. One of the chief industries of France was the raising of silkworms. Many thousands of people made their living in this way. So important were the silkworms that the mulberry tree, upon which the worms feed, was called the Tree of Gold.

And now a terrible thing happened. The silkworms began to die by the thousands. Losses were so heavy that the people of entire regions were deprived of

their livelihood. What could they do? At last they called upon Louis Pasteur for help.

Pasteur worked for a long time upon this difficult problem. As is always the case in any entirely new study, he made many false starts and many errors. At times he almost lost hope. But eventually, as he worked over his microscope, he made an important discovery that he had long hoped for and expected: he found that the silkworms were dying because disease germs were living in their bodies. Also he found that if a worm crawled upon a mulberry leaf where a diseased worm had been, the second worm became infected, too; and he found that a worm hatched from the eggs of an unhealthy silkworm moth would also develop the disease.

He then told people how to raise healthy silkworms. "Place the worms upon mulberry trees upon which no sick worms have fed," he advised. "Use only the eggs of healthy worms for hatching. You will then have healthy worms which will not be destroyed by disease." The growers did as Pasteur suggested, and the silk industry was saved, bringing prosperity back to France.

Pasteur saw in the discovery of disease germs the beginning of great good for the world. He believed that people, as well as silkworms, could be saved from illness if disease germs were kept from entering their bodies. Now began the most important period of his life, when his researches were to be directed toward the saving of human life through the prevention and cure of disease.

At this time, 1870, France became engaged in a war. The young men of France sprang to arms. Pasteur was eager to go with the rest, but lameness caused by

an early illness made his enlistment impossible. This was a great sorrow to Pasteur, but it became his privilege to save more men for France than were killed by the guns of the enemy.

As he waited for news from the front, Pasteur turned his attention to the soldiers dying in hospitals. "Why do the soldiers die of such small wounds?" he asked himself. "These wounds should easily heal." He was certain that dangerous germs were to blame for many of these deaths.

But Pasteur found that he must struggle not with disease alone; he was opposed by the doctors who would not believe that a chemist in his laboratory could teach them anything new. When he was at last elected an Associate of the Academy of Medicine, it was not for himself alone that he valued this great honor. It was because of the hope which it gave him that now the doctors would listen when he revealed to them what he knew to be true.

Soon an opportunity came which proved to be of the greatest importance. A disease called anthrax was killing sheep by the thousands on the farms of France. Pasteur suspected that a germ was also causing this disease, but the people and even some of the scientists could not or would not understand.

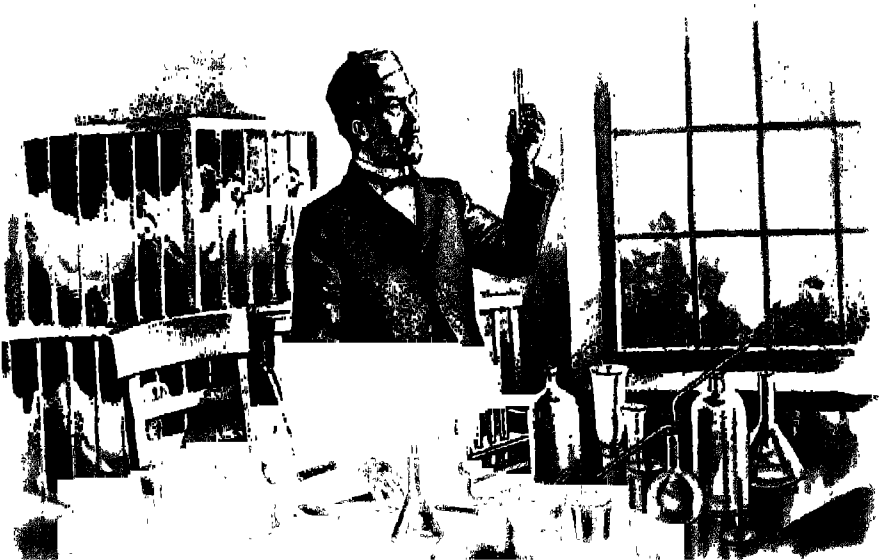
"Perhaps you are right," some of the sheep growers said. "But even if it is as you say, and a germ can travel among the sheep in this way, why do these germs attack one flock and not another? Every sheep which grazes on the mountain to the south of the village sickens and dies, while sheep in the fields close by nibble the grass in health all summer, their lambs at their sides. How can this be? It is some terrible magic, surely."

Pasteur felt sure that the germs he found in the blood of sick sheep were the cause of the trouble, not magic. Tirelessly he worked, thinking and proving, proving and thinking, as was his way.

Still the people, and even the doctors, would not believe. He realized that he must show them so plainly that they could doubt no longer. At last the chance came to prove that germs were attacking the sheep. But in this study he was to make an even greater discovery as well.

While studying the anthrax disease, Pasteur's attention was called to a disease of chickens called chicken cholera. This disease was causing great distress on the farms of France. As many as ninety per cent of the chickens in a flock were dying of cholera. No one knew what to do about it.

Pasteur now began the study of chicken cholera. He was convinced that this disease, like the anthrax of sheep, was caused by germs. He saw the cholera



germs through his microscope. He found that they would live in a broth made of chicken bones. He gave the chickens this broth in order to prove that the germs really caused the disease.

One day, quite by accident, he used a little of the broth which had been standing for some time. An astonishing thing happened. The hens became sick just as the others had done, but to Pasteur's surprise they did not die. After a short time they were as well as ever. Pasteur could hardly believe his eyes. But it was true.

"Ah!" he cried, "those old germs may have been too weak to kill the hens. Is it possible that germs can grow so weak that they are harmless?"

Then, in order to continue his experiment as he had planned, Pasteur gave the hens which had recovered from the weak cholera some fresh, strong germs. Much to his surprise, the hens did not become sick at all. A great idea came to Pasteur. Was it possible that these chickens which had been sick from the weakened germs were now made safe from strong germs that would kill other chickens?

Pasteur turned again to the sheep and his study of anthrax. He weakened anthrax germs and gave them to the sheep. The sheep became sick of anthrax, but they were soon well again. After that, strong anthrax germs which would ordinarily kill did not seem to affect these sheep.

But when he told members of the Academy of Medicine what he had discovered, they did not believe him. They challenged Louis Pasteur to a trial, which he accepted at once.

Fifty healthy sheep were brought to Pasteur for the experiment. Half of these sheep were placed in

one pen and half in another pen near by. The sheep in the first pen were given weak anthrax germs. The sheep in the second pen were not. After those in the first pen had recovered from their mild illness, the sheep in both pens were given the strong and deadly germs of anthrax, almost sure to kill unprotected sheep.

What would happen?

On June 2, 1881, a great crowd of doctors, surgeons, and sheep farmers had gathered, eager to see the results of the unusual experiment.

"If my theory is correct, the sheep which were given the weak anthrax germs first will be saved from the strong germs and will live," said Louis Pasteur. "The sheep which were not protected in this way will develop anthrax and will die."



Some of the people laughed in scorn and shook their heads sadly. "The sheep will all die," they said. "They can never escape those deadly germs."

When the time of waiting was over, the judges hastened to the pens. It was as Louis Pasteur had said. In the second pen, where the weak germs had not been given, nearly every sheep lay dead of anthrax. But the sheep in the first pen brushed with their woolly sides against the fence rail, alive and well—every one of them! These healthy sheep had been made immune to anthrax. Pasteur had proved two things: that germs cause the anthrax, and that it is possible to immunize farm animals against disease.

Everywhere Louis Pasteur was hailed as a hero of France. The French government gave him the Grand Cross of the Legion of Honor because of his service to his country.

From time to time as he worked in his laboratory, Pasteur heard stories of people who became sick and died from the bite of a mad dog. These stories always touched his heart deeply, for they brought back memories of long ago. He could see himself, a small boy, running into the house at Arbois, crying, "Why must the man be burned with the iron because the dog has bitten him? Why, Father?" He made up his mind to find, if possible, an answer to that question. He decided to find a way to save people from this disease caused by a mad dog's bite, which the doctors called rabies.

He had seen for himself that after the weak germs of a disease had lived in the body of an animal, the animal would not be made sick by strong germs of the same disease. He believed that this would be

true also of people. He felt certain that if a person were given the weak germs of rabies, he would be safe from the strong germs which kill.

First he tried this dangerous experiment on a dog. He found that a dog that had been given the weak germs of rabies would develop the disease. But even though the dog had already been bitten by a dog with rabies, if he were quickly given the weak germs, he would not go mad.

By further experimentation Pasteur discovered that dogs could be better protected against rabies if several treatments were given. For the first treatment he used very weak germs. For the next treatment slightly stronger germs were used. Then stronger and stronger germs were given until at last the strongest germs could do no harm. The dogs were safe from the germs that would ordinarily kill.

Louis Pasteur now knew that the battle against rabies had been almost won. Only one part of his proof remained; he must make experiments upon a *person*. This thought filled him with hope; it also brought him a sense of fear. People who were bitten by mad dogs did not always have rabies. Suppose that the person to whom he gave the weak germs should contract the disease and die? For a long time he could not bring himself to face the terrible risk.

At last the time came when he must make his decision. One day a boy named Joseph Meister was brought to Pasteur's laboratory in Paris. On his way to school Joseph had been bitten by a mad dog. If nothing were done, he would be almost certain to develop rabies and die. Almost certain—but not quite! For perhaps this boy might be one of the few fortunate ones who do not contract rabies from the

bite of a mad dog, even without treatment. Perhaps, too, if Pasteur gave Joseph the germs, the boy would contract the disease because of the treatment, and die by the very method that was intended to save his life.

It seemed to Pasteur that he could not bring himself to make the decision alone. In his anxiety he called in the best doctors in Paris. They examined the boy.

"What is my duty?" Pasteur asked the doctors.

"We feel that the child is doomed to die unless you can save him," they replied. "We believe that it is your duty to give him the treatments."

Pasteur hesitated no longer. He gave Joseph Meister the weak germs of the deadly rabies.

Fourteen times the treatments were given, each time with stronger germs than those given earlier. For many days the boy's life hung in the balance. Finally the last treatment was over. All night long, and for many nights thereafter, Pasteur walked the floor in hope and fear. But at last all danger had passed, and Joseph Meister was well and safe and happy. For the first time a human being had been successfully treated to prevent rabies.

Now again Louis Pasteur was called a hero of France. A hospital and laboratory, called Pasteur Institute, was built in Paris in his honor. People sent money from all over the world to make possible this great tribute to Pasteur. In this institute scientific experiments are made. Here every year thousands of people are treated for rabies in the way Pasteur discovered and taught.

And now the seventieth birthday of Louis Pasteur had come. A great celebration had been planned.

The foremost men of science—doctors and surgeons, ambassadors and princes—were invited to do honor to Louis Pasteur.

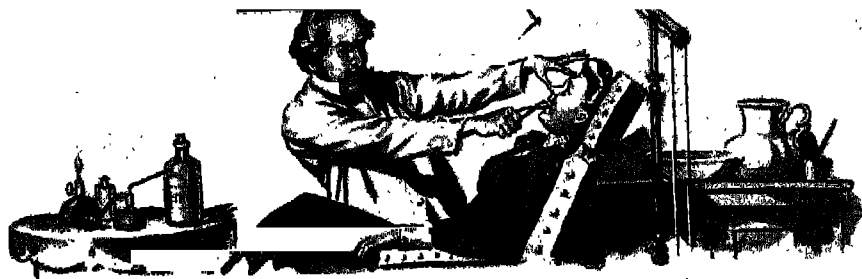
As he entered the room, leaning upon the arm of the President of the French Republic, trumpets sounded and the band played a triumphal march. The entire audience rose to its feet, greeting the great scientist with prolonged applause. It was the supreme homage of France and the world to a great man.

"Who can say at this hour how much humanity owes to you and what it will owe to you in the years to come?" said one of the speakers. And indeed who can say? For there is hardly a person living today whose life has not been touched in some way by the work of Louis Pasteur. Countless children drink their milk in safety, and numberless soldiers who might otherwise die recover from the wounds of battle. Through the discoveries which he gave to the world, men and women and children are saved from age-old diseases to live happy lives.

Other speakers told of the mighty work which Pasteur had done for science and mankind. A gold medal was presented to him in token of the love, gratitude, and pride of France.

At last the words of Pasteur himself were read by his son.

"You bring me the deepest joy," said Louis Pasteur. "For I believe that science and peace will triumph over ignorance and war, that people will come to a common understanding, not to destroy but to build, and that the future will belong to those who will have done most for suffering humanity."



Crawford Long and William Morton

by ROSEMARY *and* STEPHEN VINCENT BENÉT

"O WHET your saws and shine your knives,
Ye surgeons, tried and true!
We're going for to operate
In eighteen-forty-two!

"And, if the patient starts to yell
And bounce about the floor,
Just tell him Pain is bound to be,
And give him one chop more!"

A doctor down in Georgia,
His name was Crawford Long,
Began to wonder, more or less,
About this little song.

"The words," he said, "are elegant.
I like the gay refrain.
But, mightn't there be something in
Abolishing the pain?"

And, up in windy Boston town,
A dentist, bold but kind,
Named William Morton, felt the same
Idea tease his mind.

They didn't know each other from
 An inlay or a pill.
 But both found out, without a doubt,
 That ether filled the bill.

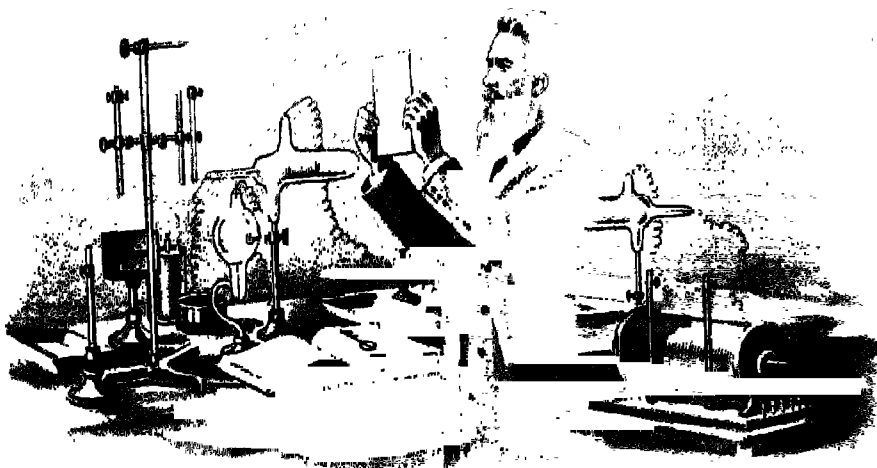
For once a man's anesthetized
 And ether's work begins,
 You'll sleep without an ouch, although
 They stick you full of pins.

To Long belongs priority
 In this historic boon,
 But Morton was the man who made
 The surgeons change their tune.

At Massachusetts General
 He showed it to the nation,
 —And everybody gaped to see
 A painless operation.

For Man had suffered and endured
 And Man had racked his brain.
 But, till those two, no creature knew
 The knife without the pain.





The World's Greatest Detective

by ARCHER WALLACE

ON ONE memorable Friday evening in 1895, a solitary worker was in his laboratory at Würzburg University in Germany, toiling with all the concentration of genius, as he had done scores of times previously. Professor Wilhelm Konrad Roentgen, for that was the worker's name, was a tall, slender, loose-limbed man who threw himself heart and soul into everything he attempted to do.

Previously that evening, Roentgen had been reading a book. When he closed it, he left a peculiarly shaped key to serve as a bookmark. In a moment of absent-mindedness he laid an active electric tube—known as a Crookes tube—on the book. The book itself was resting on a photographic plate which had been used earlier in the day but had not been developed. When it was developed, Roentgen discovered in the plate not

only the picture he had taken, but also the shadow of the key which he had used as a bookmark.

Roentgen was completely baffled, but he determined to solve the mystery. On the following evening he arranged everything in his laboratory as it had been on the previous day. He placed every object in the precise position it had been before: an exposed plate-holder, the book with the key in the center, and the active Crookes tube resting on the book. Would the shadow of the key again be seen when he developed the plate? He could hardly wait, as with quick, nervous movements, he developed the photographic plate. Yes! Once again there was the shadowy outline of the key. The rays from the tube had penetrated the thick pages of the book and caused the outline of the key again to appear on a photographic plate.

If rays could penetrate a book, then why not other substances? Metals, for instance, could be examined in this way and flaws detected; and—the thought made Roentgen tremble with excitement—why could not these mysterious rays penetrate the human body so that foreign substances could be located and removed? Later this was proved to be possible, and today these mysterious rays are used to photograph the skeleton and internal organs as an aid to diagnosing diseases.

These Roentgen rays—or X rays as they are now called—have been named the world's greatest detective agency. No human eye, unaided, can see through steel and wood and human flesh; all of these are easily penetrated by the rays. Indeed, so powerful are X rays that they can go through steel objects *fifteen inches* thick, and there are only a few of the densest metals that, so far, have not been penetrated by them.

In dozens of other ways Roentgen's discovery has been found valuable, but its greatest service has been rendered in the field of medicine and surgery. Because he is able to take pictures of the patient's interior organs, the surgeon has an unerring guide as he proceeds in his work of performing operations. It is safe to say that there is not a decently equipped hospital in the whole world without its X-ray department, and the ever-increasing accuracy with which surgeons can operate is very largely due to the assistance afforded by X-ray examinations.

It is not surprising that great honors came to Roentgen during the later years of his life. Governments one after another decorated him, and many universities conferred degrees upon him. Great cities named boulevards after him, and his laboratory became a Roentgen museum. He had the rare distinction of having a monument erected to him during his lifetime.

The forty thousand dollars he received with the Nobel prize in 1901, he donated to a society in his native land for the encouragement of scientific research. Never once was he known to have shown any desire to become rich, and he persistently refused to profit financially from his discovery. He was grateful that he had been the means of increasing human happiness, and he wished to present his discovery—free—to all humanity.

Roentgen lived to be almost seventy-eight years of age. He died at a village suburb of Munich, on February 10, 1923. Monuments of stone and bronze commemorate his worth, but the greatest of all memorials are the countless sufferers whose pain has been lightened by the treatment which his discovery made possible.

George Washington Carver

by JAMES SAXON CHILDERS

A STOOPED old Negro, carrying an armful of wild flowers, shuffled along through the dust of an Alabama clay road toward one of the buildings of Tuskegee Institute. His thin body bent by years, his hair white beneath a ragged cap, he seemed pathetic to me.

At the door of one of the buildings, I heard the bent old Negro's secretary say, "That delegation from Washington is waiting for you, Doctor Carver."

Fantastic as it seemed, this shabbily clad old man was none other than the distinguished Negro scientist of Tuskegee Institute, Dr. George Washington Carver, renowned for his many discoveries about plants that grow in the South.

Born a slave child, he began life without even a name. He never knew his father or mother. To the day of his death in 1943, he did not know when he was born, though he believed that he was over 80 years old that year. All his life he worked joyously with everyday things, making something out of nothing or next to nothing. Out of his labors at Tuskegee came such marvels as these:

From the peanut he made nearly three hundred useful products, including cheese, candies, linoleum, instant coffee, pickles, oils, shaving lotions, dyes, lard, flour, breakfast foods, soap, face powder, shampoo, printer's ink, and even axle grease!

From the lowly sweet potato he made more than a hundred products, among them starch, library paste, vinegar, shoe blacking, ink, dyes, and molasses.

From wood shavings he made synthetic marble. From the muck of swamps and the leaves of the forest floor he made valuable fertilizers.

And more still. Doctor Carver was an artist, especially skilled in painting flowers. He made all his own paints, using Alabama clays. He painted on paper made from peanut shells, and the frames for his pictures he made out of corn husks. He wove gorgeous rugs with fibers made from cotton stalks. He was a skilled musician, too.

"When you do the common things of life in an uncommon way," Doctor Carver once said to his students, "you will command the attention of the world." There lies the secret of his own achievement.

He was born in a rude slave cabin on the farm of a white planter, Moses Carver, near Diamond Grove, Missouri. When he was six months old, night raiders carried away his mother.

The Carvers reared the sickly child, bestowing his given name, "George Washington." Frail and undersized, he was nevertheless able to perform household chores, and he became an excellent cook and learned to mend clothes. The Carvers wanted him to have an education, but could furnish no money. Without a cent he set out for a school eight miles away. Alone among strangers, he slept at first in an old horse barn. Soon he picked up odd jobs and entered the school.

In his early twenties, having completed a high-school course, he mailed an entrance application to a college in Iowa, and by mail was accepted. But when he arrived, they refused to admit him because he was a Negro. Undismayed, again he worked at odd jobs. Before long he had accumulated enough money to open a small laundry.

The next year he entered Simpson College at Indianola, Iowa. When he had paid his entrance fee, he had ten cents left, and he had to live nearly a week on corn meal and suet. For three years he worked his way; then in 1890 he enrolled in Iowa State College. Four years later he took his degree in agriculture, having earned every penny of his expenses. His work so impressed the authorities that they appointed him to the college faculty.

It was while Carver was at Iowa State that Booker T. Washington invited him to Tuskegee. In accepting, Carver saw a great opportunity to serve his own people in the South. He saw that the cotton lands were wearing out through failure to rotate crops. He saw debt-burdened farmers facing poverty. He set himself to preach a gospel of native money-crops other than cotton. After study and experiment, he decided that the Southern farmer could get his money with more certainty and with less damage to his soil by growing peanuts and sweet potatoes. Doctor Carver began to write bulletins and make speeches to prove his beliefs. After a time he had persuaded Southern farmers to increase their peanut and sweet potato acreage. And then, suddenly and sadly, Doctor Carver awoke to what he had done. He had increased the *supply* of these foods without increasing the *demand* for them. People were eating no more sweet potatoes and peanuts than before, and the huge new crops were rotting. The farmers who had planted them were losing money.

Almost fiercely the scientist went to work, spending days and nights in his laboratory. He must find new uses for the peanut and the sweet potato. His success in doing so has already been mentioned; he

discovered more than four hundred different useful products hidden in the sweet potato and peanut. In addition Dr. Carver worked out tempting recipes and issued pamphlets for farm women; one of them is entitled "105 Different Ways to Prepare the Peanut for the Table."

One of Dr. Carver's first big jobs at Tuskegee was to take over and work nineteen acres of the worst land in Alabama. The best methods of farming had previously netted a loss of \$16.25 an acre on this land. Within a year, Carver showed a net gain of four dollars an acre. Later he produced two crops of sweet potatoes in one year, with a profit of seventy-five dollars an acre. These experiments proved that the world allows to go to waste an almost unlimited supply of fertilizer that most soils need—the muck from swamps and the leaves from forests.

As each new product of the potato and peanut was perfected, Doctor Carver gave it freely to the world, asking only that it be used for the benefit of mankind.



A friend told me this story which illustrates the point: "Some wealthy peanut growers in Florida were suffering from a diseased crop. They sent Doctor Carver some specimens. He told them what was wrong and how to cure it. After his treatment had been proved correct, they sent him a check for \$100, promising the same amount monthly as a retainer. He sent back the check, telling them that God didn't charge anything for growing the peanut, and that he shouldn't charge anything for curing it."

Some years ago when I visited his laboratory and saw rope made from okra fiber, insulating board from peanut shells, and dyes from dandelions, I asked Doctor Carver how he found time for all his accomplishments.

"Chiefly because I've made it a rule to get up every morning at four o'clock," he said. "I go out into



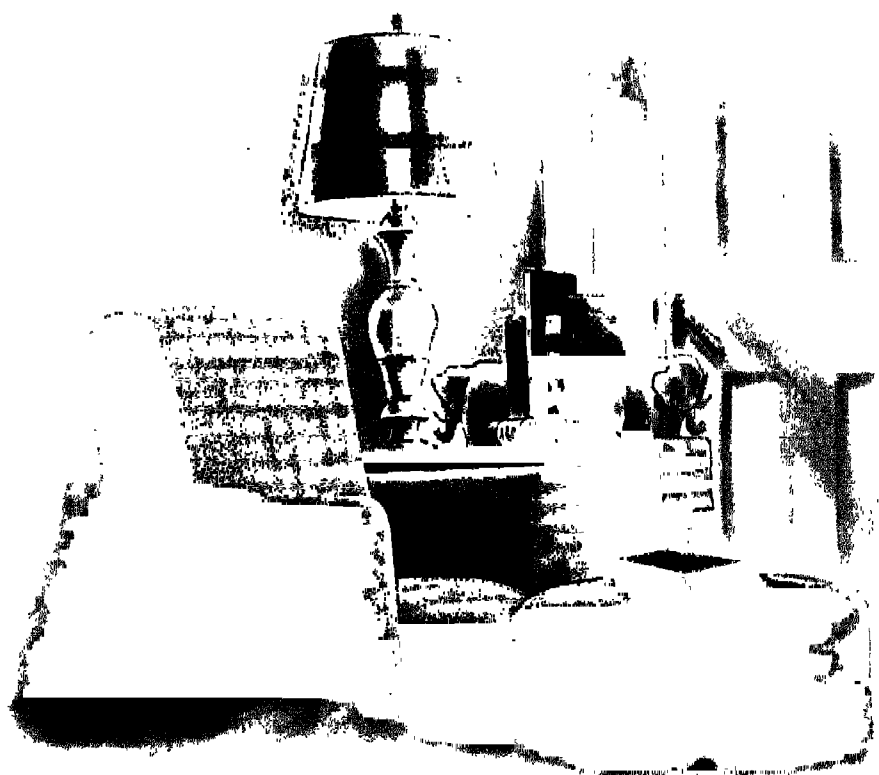
the woods. Alone there with the things I love most, I gather specimens and study the great lessons that Nature is so eager to teach me. In the woods each morning while most other persons are sleeping, I best hear and understand God's plan for me."

Inevitably his work brought offers to leave Tuskegee. In Doctor Carver's office I once saw two autographed pictures of Thomas Edison. "He sent me one of them when he asked me to come to his laboratory and work with him," Doctor Carver explained. "He sent me the other, the larger one, when I told him that my work was here in the South, and that I didn't think God wanted me to leave it."

Another offer tempted the elderly Carver with a salary of \$100,000. But he stayed on at Tuskegee, where his meager salary was quickly consumed in anonymously paying the bills of worthy boys trying to get an education. To the day of his death he continued to wear the old alpaca coat and black trousers which he had so often mended, and neckties which he knit of fibers produced by his own labors.

But if Doctor Carver refused every tempting offer to move from Tuskegee and accept a large income, he could not ignore the many honors that were showered on him. Humbly he accepted the award made in June 1941, by the Southern farm magazine, *The Progressive Farmer*, for his "outstanding service to Southern agriculture." Two years earlier the world's opinion of Doctor Carver had been summed up when he was awarded the Theodore Roosevelt Medal as "a liberator to men of the white race as well as the black."

Familiar Favorites
by Master Writers





Ulysses and the Cyclops

Retold by CHARLES LAMB

AFTER his conquest of the famous city of Troy in Asia, the Grecian warrior Ulysses, King of Ithaca, was inflamed with a desire of seeing again, after a ten years' absence, his wife and native country. Soon after setting sail for home, he and his men were cast by ill wind upon the coast of the Cicons, a people hostile to the Grecians. Landing his forces, he laid siege to the Cicons' chief city, Ismarus, which he took, and with it much spoil. But success proved fatal to him; for his soldiers, elated with spoil and the good store of provisions which they found in that place, fell to eating and drinking, forgetful of their safety. Meanwhile the Cicons had time to assemble their friends and allies from the interior, and they set upon the Grecians while they reveled and feasted, and slew many of them, and recovered the spoil. The Grecians,

dispirited and thinned in their numbers, with difficulty made good their retreat to the ships.

Thence they set sail, sad at heart, yet somewhat cheered that with such fearful odds against them they had not all been utterly destroyed. A dreadful tempest ensued, which for two nights and two days tossed them about, but the third day the weather cleared, and they had hopes of a favorable gale to carry them to Ithaca; but, as they doubled the Cape of Malea, suddenly a north wind arising drove them back.

After that, for the space of nine days, contrary winds continued to drive them in an opposite direction to the point to which they were bound, and the tenth day they put in at a shore where a race of men dwell that are sustained by the fruit of the lotus tree. Here Ulysses sent a few of his men to land for fresh water. They were met by a group of the inhabitants, who gave them some of the lotus fruit to eat. So bewitching was this food that the Grecians in a minute quite forgot all thoughts of home or of their countrymen or of ever returning back to the ships to give an account of what sort of inhabitants dwelt there. They wished to stay and live among the lotus-eaters and partake of that precious food forever; and when Ulysses sent other of his men to look for them and to bring them back by force, they strove and wept and would not leave their food for heaven itself. But Ulysses caused them to be bound hand and foot and cast under the hatches; and he set sail with all possible speed from that baneful coast, lest others after them might taste the lotus, which had such strange qualities as to make men forget their native country and the thoughts of home.

Coasting on all that night by unknown and out-of-

the-way shores, they came by daybreak to the land where dwell the Cyclopes, a sort of giant shepherds that neither sow nor plow; but the earth untilled produces for them rich wheat and barley and grapes. Yet they have neither bread nor wine, nor know the arts of cultivation; they live each man to himself, without laws or government. Their dwellings are in caves, on the steep heads of mountains; every man's household governed by his own whim, or not governed at all; their wives and children as lawless as themselves, none caring for others, but each doing as he or she thinks good.

Ships or boats they have none, nor trade or commerce; yet they have convenient places for harbors and shipping. Here Ulysses with a chosen party of twelve followers landed, to discover what sort of men dwelt there, whether hospitable and friendly to strangers, or altogether wild and savage, for as yet no dwellers had appeared in sight.

The first sign of habitation which they came to was a giant's cave rudely fashioned, but of a size which betokened the vast proportions of its owner. The pillars which supported it were the bodies of huge oaks or pines, and all about showed marks of more strength than skill in whoever built it. Ulysses, entering, longed to see the tenant of so outlandish a mansion; but foreseeing that gifts would be demanded by such a one as he expected to find, he resolved to flatter the inhabitant into hospitality with a present of Greek wine, of which he had a store in twelve great vessels. So strong was this wine that no one ever drank it without mixing it with twenty parts of water to one of wine; whoever tasted it found his courage raised to the height of heroic deeds. Taking with

them a goatskin flagon full of this precious liquor, the Grecians ventured into the recesses of the cave. Here they pleased themselves a whole day with exploring the giant's kitchen, where the flesh of sheep and goats lay strewed; his dairy, where goat milk stood ranged in troughs and pails; his pens, where he kept his live animals except those he had driven forth to pasture with him when he went out in the morning.

While the Grecians were feasting their eyes with a sight of these curiosities, their ears were suddenly deafened with a noise like the falling of a house. It was the owner of the cave, who had been abroad all day feeding his flock, as his custom was, in the mountains, and now drove them home in the evening from pasture. He had thrown down before the mouth of the cave a pile of firewood, which he had been gathering against suppertime, and this had occasioned the crash they had heard.

The Grecians hid themselves in the remote parts of the cave at sight of the uncouth monster. It was Polyphemus, the largest and savagest of the Cyclopes, who boasted himself to be the son of the sea god Neptune. He looked more like a mountain crag than a man, and his mind was as brutish as his body. He drove his flock, all that gave milk, to the interior of the cave, but left the rams and the he-goats without. Then, taking up a stone so massive that twenty oxen could not have drawn it, he placed it at the mouth of the cave, to defend the entrance, and sat down to milk his ewes and his goats. This done, he lastly kindled a fire, and casting his great eye round the cave (for each of the Cyclopes has but one eye, and that placed in the midst of his forehead), by the glimmering light he discerned some of Ulysses' men.



"Ho! guests, what are you? Merchants or wandering thieves?" he bellowed out in a voice which took from them all power of reply, it was so astounding.

Only Ulysses summoned courage to answer. They came, he said, neither to plunder nor trade, but were Grecians who had lost their way, returning from Troy; which famous city they had sacked. Yet now they prostrated themselves humbly before his feet, whom they acknowledged to be mightier than they, and besought him that he would bestow hospitality upon them, for Jove, who was the guardian of all strangers, would fiercely resent any injury done to them.

"Fool!" said the giant, "to come so far to preach to me the fear of the gods. We Cyclopes care not for

your Jove, nor for any of your blessed ones. We are stronger than they, and dare bid open battle to Jove himself, though you and all your fellows of the earth join with him."

And he bade them tell him where their ship was in which they came and whether they had any companions. But Ulysses, with a wise caution, made answer that they had no ship or companions, but were unfortunate men, whom the sea, splitting their ship in pieces, had dashed upon his coast, and they alone had escaped. Polyphemus replied nothing, but gripping the two nearest, as if they had been no more than children, he dashed their brains out against the earth, and, shocking to relate, tore in pieces their limbs and devoured them. For the Cyclopes are man-eaters, though by reason of this abhorred custom few men approach their coast, except now and then a shipwrecked mariner. At a sight so horrid, Ulysses and his men were like crazed people. The Cyclops, when he had made an end of his wicked supper, drained a draft of goat's milk down his prodigious throat and lay down and slept among his goats. Then Ulysses drew his sword and half resolved to thrust it with all his might into the bosom of the sleeping monster. But wiser thoughts restrained him, else they had all perished there without help, for none but Polyphemus himself could have removed that mass of stone which he had placed to guard the entrance. So Ulysses and his men were constrained to abide all that night in fear.

When day came, the Cyclops awoke and, kindling a fire, made his breakfast of two other of his unfortunate prisoners. Then he milked his goats as he was accustomed and, pushing aside the vast stone with as much ease as a man opens and shuts a quiver's lid, he let

out his flock, and drove them before him to the mountains, first shutting the stone again upon the prisoners.

Then Ulysses, of whose strength or cunning the Cyclops seems to have had as little heed as of an infant's, being left alone with the remnant of his men which the Cyclops had not devoured, gave manifest proof how far manly wisdom excels brutish force. He chose a stake from among the wood which the Cyclops had piled up for firing, in length and thickness like a mast, which he sharpened and hardened in the fire. Now he selected four men and instructed them what they should do with this stake.

When the evening was come, the Cyclops drove home his sheep; and as luck would have it, he drove the males of his flock, contrary to his custom, along with the dams into the pens. Then shutting the stone of the cave, he fell to his horrible supper. When he had dispatched two more of the Grecians, Ulysses waxed bold with the contemplation of his project, and took a bowl of Greek wine, and merrily dared the Cyclops to drink.

"Cyclops," he said, "take a bowl of wine from the hand of your guest. It may serve to digest the man's flesh that you have eaten, and show what drink our ship held before it went down. All I ask in recompense, if you find it good, is to be sent away in a whole skin. Truly you must expect to have few visitors if you observe this new custom of eating your guests."

The brute took and drank, and vehemently enjoyed the taste of wine, which was new to him, and swilled again at the flagon, and entreated for more, and prayed Ulysses to tell him his name so that he might bestow a gift upon the man who had given him such brave liquor. The Cyclopes, he said, had grapes, but this rich juice, he swore, was divine.

Again Ulysses plied him with the wine, and the fool drank it as fast as Ulysses poured it out, and again Polyphemus asked the name of his benefactor. Ulysses, cunningly dissembling, said, "My kindred and friends in my own country call me Noman."

"Then," said the Cyclops, "this is the kindness that I will show thee, Noman: I will eat thee last of all thy friends." He had scarce expressed his savage kindness, when the fumes of the strong wine overcame him and he reeled down upon the floor and sank into a dead sleep.

Ulysses watched his time while the monster lay insensible. Heartening up his men, he told them to place the sharp end of the stake in the fire till it was heated red-hot; and the four men found a courage beyond that which they were used to have, and they with great difficulty bored the sharp end of the huge stake, which they had heated red-hot, right into the eye of the drunken cannibal; and Ulysses helped to thrust it in with all his might still further and further, with effort, as men bore with an auger, till the eyeball smoked and the strings of the eye cracked.

Polyphemus, waking, roared with the pain so loud that all the cavern broke into claps like thunder. The Greeks fled into corners. The Cyclops plucked the burning stake from his eye and hurled the wood madly about the cave. Then he cried out with a mighty voice for his brethren, who dwelt hard by in caverns upon the hills. They, hearing the terrible shout, came flocking from all parts to inquire what ailed Polyphemus, and what cause he had for making such horrid clamors in the nighttime to break their sleep. He made answer from within that Noman had hurt him, Noman had killed him, Noman was with him in the cave.

They replied, "If no man has hurt thee and no man is with thee, then thou art alone; and the evil that afflicts thee is from the hand of heaven, which none can resist or help."

So they left him and went their way, thinking that some disease troubled him. He, blind, and ready to split with the anguish of the pain, went groaning up and down in the dark to find the doorway. When he found it, he removed the stone and sat in the threshold, feeling the backs of the sheep with his hands to see if he could lay hold on any man going out with the sheep, which (the day now breaking) were beginning to issue forth to their accustomed pastures.

But Ulysses, having been shrewd enough to think of using the ambiguous name of Noman, was far too clever to be caught in such an obvious scheme. Casting about in his mind all the ways which he could contrive for escape (no less than all their lives depending on the success), he at last thought of this plan: He made ropes of the osier twigs upon which the Cyclops commonly slept, with which he tied the fattest and fleeciast of the rams together, three in a rank. Under the middle ram of each rank he tied a man, and himself last, wrapping himself fast with both his hands in the rich wool of one, the fairest of the flock.

And now the sheep began to issue forth very fast; the males went first, the females, un milked, stood by, bleating. Still, as the males passed, the Cyclops felt the backs of those fleecy fools, never dreaming that they carried his enemies under them. So they passed on till the last ram came loaded with his wool and Ulysses together. The Cyclops stopped that ram and felt him



and had his hand once in the hair of Ulysses, yet knew it not; he spoke to the ram as if it understood him and asked it whereabouts in the cave his enemy lurked, that he might dash out his brains. After a deal of such foolish talk to the beast, he let it go.

When Ulysses found himself free, he let go his hold, and assisted in disengaging his friends. The rams which had befriended them they carried off with them to the ships, where their companions with tears in their eyes received them as men escaped from death. They plied their oars and set their sails, and when they were got as far off from shore as a voice could reach, Ulysses cried out to the giant, "Cyclops, thou shouldst not have so much abused thy monstrous strength as

to devour thy guests. Jove, by my hand, sends thee payment for thy savage cruelty."

The Cyclops heard and came forth enraged, and in his anger he plucked a fragment of a rock and threw it with blind fury at the ships. It narrowly escaped lighting upon the bark in which Ulysses sat, but with the fall, it raised so fierce a wave as to suck back the ship till it almost touched the shore.

"Cyclops," called Ulysses, "if any ask thee who gave thee that unsightly blemish in thine eye, say it was Ulysses, the King of Ithaca." Then they crowded sail and beat the old sea, and forth they went with a forward gale, sad for bygone losses, yet glad to have escaped at any cost.






The Skeleton in Armor

by HENRY WADSWORTH LONGFELLOW

"SPEAK! speak! thou fearful guest!
Who, with thy hollow breast
Still in rude armor dressed,
Comest to daunt me!
Wrapped not in Eastern balms,
But with thy fleshless palms
Stretched, as if asking alms,
Why dost thou haunt me?"


Then from those cavernous eyes
Pale flashes seemed to rise,
As when the Northern skies
Gleam in December;
And, like the water's flow
Under December's snow,
Came a dull voice of woe
From the heart's chamber.





"I was a Viking old!
My deeds, though manifold,
No skald in song has told,
No saga taught thee!
Take heed, that in thy verse
Thou dost the tale rehearse,
Else dread a dead man's curse;
For this I sought thee.

"Far in the Northern Land,
By the wild Baltic's strand,
I, with my childish hand,
Tamed the gerfalcon;
And, with my skates fast-bound,
Skimmed the half-frozen sound,
That the poor whimpering hound
Trembled to walk on.





"Oft to his frozen lair
Tracked I the grizzly bear,
While from my path the hare
Fled like a shadow;
Oft through the forest dark
Followed the werewolf's bark,
Until the soaring lark
Sang from the meadow.

"But when I older grew,
Joining a corsair's crew,
O'er the dark sea I flew
With the marauders.
Wild was the life we led,
Many the souls that sped,
Many the hearts that bled,
By our stern orders.



"Many a wassail-bout
Wore the long winter out;
Often our midnight shout
Set the cocks crowing,
As we the berserk's tale
Measured in cups of ale,
Draining the oaken pail,
Filled to o'erflowing.

"Once as I told in glee
Tales of the stormy sea,
Soft eyes did gaze on me,
Burning yet tender;
And as the white stars shine
On the dark Norway pine,
On that dark heart of mine
Fell their soft splendor.

"I wooed the blue-eyed maid,
Yielding, yet half afraid,
And in the forest's shade
Our vows were plighted.
Under its loosened vest
Fluttered her little breast,
Like birds within their nest
By the hawk frightened.

"Bright in her father's hall
Shields gleamed upon the wall,
Loud sang the minstrels all,
Chanting his glory;
When of old Hildebrand
I asked his daughter's hand,

Mute did the minstrels stand
To hear my story.

"While the brown ale he quaffed,
Loud then the champion laughed,
And as the wind-gusts waft

The sea foam brightly,
So the loud laugh of scorn,
Out of those lips unshorn,
From the deep drinking-horn
Blew the foam lightly.

"She was a Prince's child,
I but a Viking wild,
And though she blushed and smiled,
I was discarded!

Should not the dove so white
Follow the sea mew's flight?
Why did they leave that night
Her nest unguarded?

"Scarce had I put to sea,
Bearing the maid with me—
Fairest of all was she
Among the Norsemen!—
When on the white sea strand,
Waving his armed hand,
Saw we old Hildebrand,
With twenty horsemen.

"Then launched they to the blast,
Bent like a reed each mast,
Yet we were gaining fast,
When the wind failed us;

And with a sudden flaw
Came round the gusty Skaw,
So that our foe we saw
Laugh as he hailed us.

"And as to catch the gale
Round veered the flapping sail,
Death! was the helmsman's hail,
Death without quarter!
Midships with iron keel
Struck we her ribs of steel;
Down her black hulk did reel
Through the black water!

"As with his wings aslant,
Sails the fierce cormorant,
Seeking some rocky haunt,
With his prey laden,
So toward the open main,
Beating to sea again,
Through the wild hurricane,
Bore I the maiden.

"Three weeks we westward bore,
And when the storm was o'er,
Cloudlike we saw the shore
Stretching to leeward;
There for my lady's bower
Built I the lofty tower,
Which, to this very hour,
Stands looking seaward.

"There lived we many years;
Time dried the maiden's tears;

She had forgot her fears,
She was a mother;
Death closed her mild blue eyes,
Under that tower she lies;
Ne'er shall the sun arise
On such another!

"Still grew my bosom then,
Still as a stagnant fen!
Hateful to me were men,
The sunlight hateful.
In the vast forest here,
Clad in my warlike gear,
Fell I upon my spear,
Oh, death was grateful!

"Thus, seamed with many scars,
Bursting these prison bars,
Up to its native stars
My soul ascended!
There from the flowing bowl
Deep drinks the warrior's soul,
Skool! to the Northland! *skoal!*"
—Thus the tale ended.





The Lady or the Tiger?

by FRANK R. STOCKTON

IN THE very olden time, there lived a semibarbaric King. He was a man of strong will who loved authority. At the same time he wished to rule his subjects with fair and impartial justice. Among his notions for doing this was that of building a huge arena—not as a place for entertaining the people with contests of gladiators, but as a great public court. Thus, whenever a subject was charged with a serious crime, the King gave public notice that on an appointed day the fate of the accused person would be decided in the arena.

When all the people had assembled in the galleries, the King, sitting high up on his throne on one side of the arena, gave a signal. Immediately a door beneath him opened and the accused subject stepped out into the amphitheater. Directly opposite this accused person, on the other side of the arena, were two doors, exactly alike and side by side. It was the duty and the privilege of the person on trial to walk directly to these doors and open one of them. He could open either door he pleased; he was influenced in his choice only by chance. If he opened one of them, there came out of it a hungry tiger, the fiercest that could be found, which immediately sprang upon him and tore him to pieces, as a punishment for his guilt. The moment that the case of the criminal was thus decided,

doleful iron bells were clanged, and the vast audience left the arena with bowed heads, mourning greatly that one so young and fair, or so old and respected, should have merited so dire a fate.

But if the accused person opened the other door, there came forth from it a lady, the most suitable to his years and station that His Majesty could select among his fair subjects. To this lady the accused man was immediately married, as a reward of his innocence. It mattered not that he might already possess a wife or that he might be in love with another lady. The King allowed no such obstacles to stand in the way of the decision of the arena. Immediately after the lady stepped forth, another door opened beneath the King, and from it came a priest, followed by a band of dancing maidens blowing joyous airs on golden horns. This procession advanced to where the innocent man and his bride stood side by side, and the wedding was promptly solemnized. Then the gay brass bells rang forth their merry peals, the people shouted glad hurrahs, and the married couple, preceded by children strewing flowers, made their way out of the arena.

This was the King's method of administering justice. Its perfect fairness is obvious. The criminal could not know out of which door would come the lady. He opened either he pleased, without having the slightest idea whether, in the next instant, he was to be devoured or married. On some occasions the tiger came out of one door, and on some occasions it came out of the other. The accused person was instantly punished if he found himself guilty, and if he proved himself innocent, he was rewarded on the spot, whether he liked it or not. There was no escape from the justice of the King's arena.

This method of administering justice was well liked by the people. When they gathered together on the great trial days, they never knew whether they were to witness a bloody slaughter or a hilarious wedding. They enjoyed the element of chance that the plan afforded and thought the trial was entirely fair; for did not the accused person have the whole matter in his own hands?

This King had a daughter with a soul as proud and determined as his own. As is usual in such cases, she was the apple of his eye. Among his courtiers was a young man of fine blood but low station who had the boldness to fall in love with the Princess. The royal maiden was well satisfied with her lover, for he was handsome and brave, and their affair moved on happily until one day the King happened to discover its existence. He did not hesitate in regard to his duty. The youth was immediately cast into prison, and a day was set aside for his trial in the King's arena.

This, of course, was an especially important occasion, and His Majesty, as well as all the people, was greatly interested in the trial. Never before had such a case occurred—never before had a subject dared to love the daughter of a king. The tiger cages of the kingdom were searched for the most savage beast that could be found. Also the ranks of maiden youth and beauty throughout the land were carefully surveyed in order that the young man might have a fitting bride in case fate did not bring him death instead.

Of course, everybody knew that the deed with which the accused was charged had been done. He had fallen in love with the Princess, and neither he, she, nor anyone else thought of denying the fact. But the King



would not think of allowing any fact of this kind to interfere with the workings of his court of justice.

The appointed day arrived. From far and near the people gathered, thronging the great galleries of the arena, while crowds, unable to gain admittance, massed themselves against its outside walls. The King and

his courtiers were now in their places, directly opposite the twin doors—those fateful doors, so terrible in their similarity!

All was ready. The signal was given. A door beneath the royal party opened, and the lover of the Princess walked into the arena. Tall and fair, his entrance was greeted with a low hum of admiration and anxiety. No wonder the Princess loved him! What a terrible thing for him to be there!

As the youth advanced into the arena, he turned, as the custom was, to bow to the King. But he did not think at all of the King; his eyes were fixed upon the Princess, who sat to the right of her father.



From the moment that the decree had gone forth that her lover must decide his fate in the King's arena, she had thought of nothing, night or day, but this great event. Having more power, influence, and force of character than anyone who had ever before been interested in such a case, she had done what no other person had done—she had learned the secret of the doors. She knew in which of the two rooms behind those doors stood the cage of the tiger, with its open front. She knew, too, in which room waited the lady. Through these thick doors, heavily curtained with skins on the inside, it was impossible that any noise or suggestion should come from within to the person who should approach to raise the latch of one of them. But gold, and the power of a woman's will, had brought the secret to the Princess.

Not only did she know in which room stood the lady, ready to emerge if her door were opened, but she knew who the lady was. She was one of the fairest and loveliest of the damsels of the court—and the Princess hated her. Often had the Princess seen this fair creature throwing glances of admiration at her lover, and sometimes the Princess thought the glances were even returned. Now and then she had seen them talking together. It was for but a moment or two, but much can be said in a brief space. The girl was lovely, but she had dared raise her eyes to the loved one of the Princess. With all the intensity of the half-savage royal blood that flowed in her veins the Princess hated the woman who stood behind that silent door.

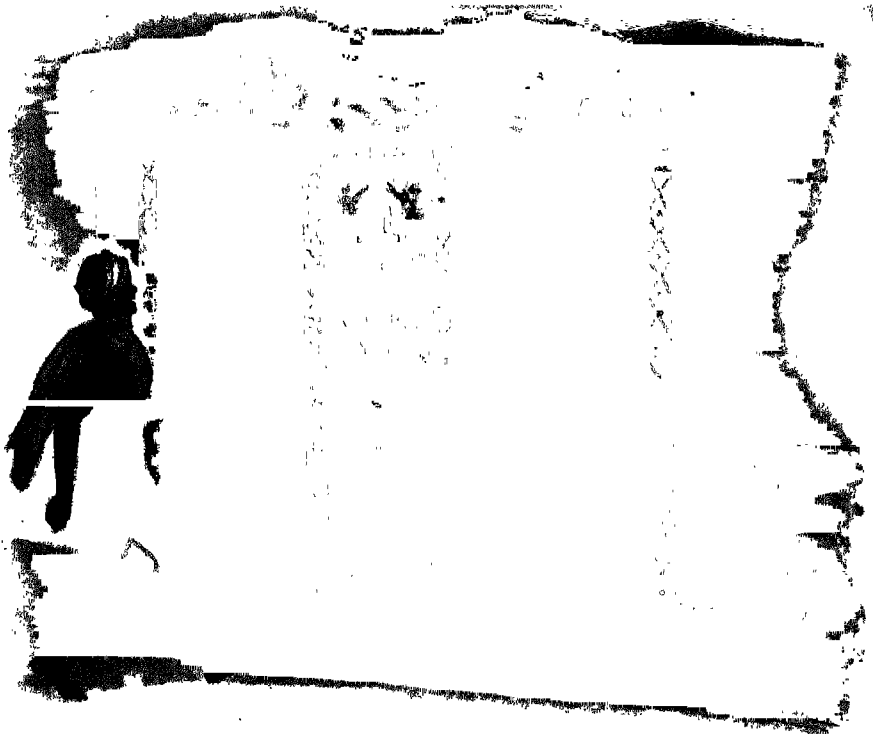
When her lover turned and looked at her, and his eye met hers, he saw at once that she knew behind

which door crouched the tiger and behind which door stood the lady. He had expected her to know it. He understood her nature and was confident that she would never rest until she had made plain to herself this secret. The moment he looked up, he knew that she had succeeded.

Then it was that his quick and anxious glance asked the question, "Which?" It was as plain to her as if he had shouted it from where he stood. There was not an instant to be lost. The question had been asked in a flash; it must be answered in another.

Her right arm lay on the cushioned parapet before her. She raised her hand and made a slight, quick movement toward the right.





No one but her lover saw her. Every eye but his was fixed on the man in the arena.

He turned, and with a firm and rapid step he walked across the empty space. Every heart stopped beating, every breath was held, every eye was fixed upon that man. Without the slightest hesitation he went to the door on the right and opened it.

Now, the point of the story is this: Did the tiger come out of that door, or did the lady?

The more we ponder this question, the harder it is to answer. It requires a difficult study of a human heart. Think of it, reader, not as if the decision depended upon yourself, but upon that hot-blooded, semibarbaric Princess, her soul torn be-

tween love, despair, and jealousy. She had lost him, no matter which door he chose; but who should have him?

How often, in her waking hours and in her dreams, had she stared in wild horror and covered her face with her hands as she thought of her lover opening the door on the other side of which waited the cruel fangs of the tiger!

But how much oftener had she pictured him at the other door! That picture of his rapturous delight as he opened the door of the lady had caused the Princess to gnash her teeth and tear her hair. Her heart had burned in agony when she had pictured him rushing to meet the woman, when she had heard, in imagination, the glad shouts from the people and the joyous ringing of the bells as the couple was joined in marriage. Every detail of the triumphant scene the Princess had imagined, and each of them had torn her soul with jealous rage.

Would it not be better for him to die at once?

And yet, that awful tiger, those shrieks, that blood!

Her decision had been indicated in an instant, but it had been made after days and nights of anguished thought. She had known that she would be asked, and she had decided what she would answer; and now, without the slightest hesitation, she had moved her hand to the right.

The question of her decision is not an easy one to answer, and it is not for me to presume to set myself up as the one person capable of answering it correctly. So I leave it with all of you:

Which came out of the opened door—the lady or the tiger?



The Adventure of the Blue Carbuncle

by SIR ARTHUR CONAN DOYLE

I HAD called upon my friend Sherlock Holmes on the second morning after Christmas, with the intention of wishing him the compliments of the season. He was lounging upon the sofa in a purple dressing gown; a pipe rack and a pile of crumpled morning newspapers near at hand. Beside the couch was a wooden chair, and on the angle of the back hung a very seedy black felt hat, much the worse for wear. A magnifying glass and a forceps lying upon the seat of the chair suggested that the hat had been suspended in this manner for the purpose of examination.

"Do I interrupt you?" I asked.

"Not at all. I am glad to have a friend with whom I can discuss my results."

I seated myself in his armchair and warmed my hands



before his crackling fire. "I suppose," I remarked, "that this hat has some deadly story linked on to it—that it is the clue which will guide you in the solution of some mystery and the punishment of some crime."

"No, no. No crime," said Sherlock Holmes, laughing. "You know Peterson, the commissioner?"

"Yes. It is his hat?"

"No, no; he found it. Its owner is unknown. The facts are these: About four o'clock on Christmas morning, Peterson was returning from some small party, and was making his way homeward down Tottenham Court Road. In front of him he saw, in the gaslight, a tallish man, walking with a slight stagger and carrying a white goose slung over his shoulder. As he reached the corner of Goodge Street, a row broke out between this stranger and a little knot of roughs. One of the latter knocked off the man's hat. He raised his stick to defend himself, and, swinging it over his head, smashed the shop window behind him. Peterson



had rushed forward to protect the stranger from his assailants; but the man, seeing an official-looking person in uniform rushing toward him, dropped his goose, took to his heels, and vanished. The roughs had also fled, so that Peterson was left in possession of the field of battle and also of the spoils of victory in the shape of this battered hat and a fine Christmas goose."

"Surely he restored the goose to the owner?"

"My dear fellow, there lies the problem. It is true that 'For Mrs. Henry Baker' was printed upon a small card which was tied to the bird's left leg, and it is also true that the initials 'H. B.' are legible upon the lining of this hat; but as there are some hundreds of Henry Bakers in this city of ours, it is not easy to restore lost property to any one of them."

"What, then, did Peterson do?"

"He brought both hat and goose to me on Christmas morning, knowing that even the smallest problems are of interest to me. The goose we retained until this morning, when there were signs that, in spite of the slight frost, it would be well that it should be eaten without unnecessary delay. Its finder has carried it off, therefore, while I continue to retain the hat of the unknown gentleman who lost his Christmas dinner."

"Did he not advertise?"

"No."

"Then what clue could you have as to his identity?"

"Only as much as we can deduce from his hat."

"But you are joking. What can you gather from this old battered felt?"

"Here is my lens. You know my methods. What can you yourself gather as to the man who has worn this article?"

I took the tattered object in my hands and turned it over rather ruefully. It was a very ordinary black hat of the usual round shape, dirty, and much the worse for wear. The lining had been of red silk, but was a good deal discolored. There was no maker's name; but, as Holmes had remarked, the initials "H. B." were scrawled upon one side. For the rest, it was cracked, exceedingly dusty, and spotted in several places, although there seemed to have been some attempt to hide the discolored patches by smearing them with ink.

"I can see nothing," said I, handing it back to my friend.

"On the contrary, Watson, you can see everything. You fail, however, to reason from what you see. You are too timid in drawing your inferences."

"Then, pray tell me what it is that you can infer from this hat?"

He picked it up and gazed at it in the peculiar introspective fashion which was characteristic of him. "That the man was highly intellectual is of course obvious upon the face of it, and also that he was fairly well-to-do within the last three years, although he has now fallen upon evil days. Some evil influence, probably drink, has been at work upon him. It is also an obvious fact that his wife has ceased to love him."

"My dear Holmes!"

"He has, however, retained some degree of self-respect," he continued, disregarding my remonstrance. "He is a man who leads a sedentary life, goes out little, is middle-aged, and has had his hair, which he anoints with lime-cream, cut within the last few days."

"I have no doubt that I am very stupid; but I must confess that I am unable to follow you. For example, how did you deduce that this man was intellectual?"

For answer Holmes clapped the hat upon his head. It came right over the forehead and settled upon the bridge of his nose. "It is a question of cubic capacity," said he; "a man with so large a brain must have something in it."

"The decline of his fortunes, then?"

"This hat is three years old. These flat brims curled at the edge came in style then. It is a hat of the very best quality. Look at the band of ribbed silk and the excellent lining. If this man could afford to buy so expensive a hat three years ago, and has had no hat since, then he has assuredly gone down in the world."

"Well, that is clear enough, certainly. But how about his self-respect?"

Sherlock Holmes laughed, putting his finger upon the ink smears that I had noticed. "The owner of this hat is obviously not too careful about his personal appearance. On the other hand, he has endeavored to conceal some of these stains upon the felt by daubing them with ink, which is a sign that he has not entirely lost his self-respect."

"Your reasoning is certainly plausible."

"The further points—that he is middle-aged, that his hair has been recently cut, and that he uses lime-cream—are all to be gathered from a close examination of the lower part of the lining. The lens discloses a large number of grizzled hair-ends, clean cut by the scissors of the barber, and there is a distinct odor of lime-cream. This dust, you will observe, is not the gritty, gray dust of the street, but the fluffy brown dust of the house, showing that the hat has been hung up indoors most of the time and that its owner seldom goes out."

"But his wife—you said that she had ceased to love him."

"This hat has not been brushed for weeks. When I see you, my dear Watson, with a week's accumulation of dust upon your hat, and when your wife allows you to go out in such a state, I shall fear that you also have been unfortunate enough to lose your wife's affection."

"But he might be a bachelor."

"Nay, he was bringing home the goose as a peace offering to his wife. Remember the card upon the bird's leg."

"You have an answer to everything; but since, as

you said just now, there has been no crime committed, and no harm done, save the loss of a goose, all this seems to be rather a waste of energy."

Sherlock Holmes had opened his mouth to reply, when the door flew open and Peterson, the commissionaire, rushed into the apartment with flushed cheeks and the face of a man who is dazed with astonishment.

"The goose, Mr. Holmes! The goose!" he gasped.

"Eh? What of it, then? Has it returned to life and flapped off through the kitchen window?"

"See here, sir! See what my wife found in its crop!" He held out his hand and displayed upon the center of the palm a brilliantly scintillating blue stone, *rather smaller than a bean in size, but of such purity and radiance that it twinkled like an electric point in the dark hollow of his hand.*

Sherlock Holmes sat up with a whistle. "By Jove,



Peterson!" said he, "this is treasure-trove indeed. I suppose you know what you have got?"

"A diamond, sir? A precious stone?"

"It's more than a precious stone. It is *the* precious stone."

"Not the Countess of Morcar's blue carbuncle!" I ejaculated.

"Precisely so. I ought to know its size and shape, seeing that I have read the advertisement about it in the *Times* every day lately. Its value can only be guessed at, but the reward offered of £1000 is certainly not within a twentieth part of the market price."

"A thousand pounds! Great Lord of mercy!" The commissioner plumped down into a chair.

"It was lost, if I remember aright, at the Hotel Cosmopolitan," I remarked.

"Precisely so, on December 22, just five days ago. John Horner, a plumber, was accused of having taken it from the lady's jewel box. The evidence against him was so strong that the case has been referred to the police court. I have some account of the matter here, I believe." He rummaged amid his newspaper clippings, until at last he smoothed one out, and read the following paragraph:

HOTEL COSMOPOLITAN JEWEL ROBBERY

John Horner, 26, plumber, was brought up on the charge of having on the 22nd instant taken from the jewel case of the Countess of Morcar the valuable gem known as the blue carbuncle. James Ryder, head attendant at the hotel, gave his evidence to the effect that he had shown Horner up to the dressing room of the Countess of Morcar upon the day of the robbery, in order that

he might solder the second bar of the grate, which was loose. He had remained with Horner some little time, but had finally been called away. On returning, he found that Horner had disappeared, that the bureau had been forced open, and that the small morocco casket in which the countess was accustomed to keep her jewels was lying empty upon the dressing table. Ryder instantly gave the alarm, and Horner was arrested the same evening; but the stone could not be found either upon his person or in his rooms. Catherine Cusack, maid to the countess, said that she had heard Ryder's cry of dismay on discovering the robbery, and had rushed into the room, where she found matters as described by the last witness. Inspector Bradstreet gave evidence of a previous conviction for robbery against the prisoner.

"The question for us now to solve," said Holmes thoughtfully, tossing aside the paper, "is the sequence of events leading from a rifled jewel case at one end, to the crop of a goose in Tottenham Court Road at the other. You see, Watson, our little deductions have suddenly assumed a much more important aspect. Here is the stone; the stone came from the goose, and the goose came from Mr. Henry Baker. So now we must set ourselves very seriously to finding this gentleman and ascertaining what part he has played in this little mystery. To do this, we must try the simplest means first, and these lie undoubtedly in an advertisement in all the evening papers."

"What will you say?"

"Give me a pencil and that slip of paper. Now, then: 'Found at the corner of Goodge Street, a goose

and a black felt hat. Mr. Henry Baker can have the same by applying at 6:30 this evening at 221B, Baker Street.' That is clear."

"Very. But will he see it?"

"Well, he is sure to keep an eye on the papers, since, to a poor man, the loss was a heavy one. Then, again, everyone who knows him will direct his attention to it. Here you are, Peterson. Run down and have this put in the evening papers."

"Very well, sir. And this stone?"

"Ah, yes, I shall keep the stone. Thank you. And, I say, Peterson, just buy a goose on your way back, and leave it here with me, for we must have one to give to this gentleman in place of the one which your family is now devouring."

When the commissionaire had gone, Holmes took up the stone and held it against the light. "It's a bonny thing," said he. "Just see how it glints and sparkles. This stone is not yet twenty years old. It was found in the banks of the Amoy River in Southern China and is remarkable in having every characteristic of the carbuncle, save that it is blue in shade, instead of ruby red. In spite of its youth, it has already had a sinister history. There have been two murders, a suicide, and several robberies brought about for the sake of this forty-grain weight of crystallized charcoal. I'll lock it up in my strongbox now, and drop a line to the countess to say that we have it."

"Do you think that this man Horner is innocent?"

"I cannot tell."

"Well, then, do you imagine that this other one, Henry Baker, had anything to do with the matter?"

"It is, I think, much more likely that Henry Baker is an absolutely innocent man, who had no idea that

the bird which he was carrying was of considerably more value than if it were made of solid gold. That, however, I shall determine by a very simple test, if we have an answer to our advertisement."

"And you can do nothing until then?"

"Nothing."

"In that case I shall continue my professional round. But I shall come back in the evening before six thirty, for I should like to see the solution of so strange a business."

"Very glad to see you."

I was delayed at a case, and it was a little after half past six when I found myself in Baker Street once more. As I approached the house I saw a tall man in a Scotch bonnet with a coat which was buttoned up to his chin, waiting outside. Just as I arrived, the door was opened, and we were shown up together to Holmes' room.

"Mr. Henry Baker, I believe," said he. "Pray take this chair by the fire. Ah, Watson, you have come just at the right time. Is that your hat, Mr. Baker?"

"Yes, sir, that is undoubtedly my hat."

He was a large man, with rounded shoulders, a massive head, and a broad, intelligent face. A slight tremor of his extended hand recalled Holmes' surmise as to his habits. The collar of his rusty black frock coat was turned up, and his lank wrists protruded from his sleeves without a sign of cuff or shirt. He gave the impression of an educated man, but one whose fortunes had declined.

"We have retained these things for some days," said Holmes, "because we expected to see an advertisement from you giving your address. I am at a loss to know now why you did not advertise."

Our visitor gave a rather shamefaced laugh. "Shillings have not been so plentiful with me as they once were," he remarked. "I had no doubt that the gang of roughs who assaulted me had carried off both my hat and the goose. I did not care to spend more money in a hopeless attempt at recovering them."

"Very naturally. By the way, about the bird, we were compelled to eat it."

"To eat it!" Our visitor half rose from his chair in his excitement.

"Yes, it would have been of no use to any one had we not done so. But I presume that this other goose upon the sideboard, which is about the same weight and perfectly fresh, will answer your purpose equally well?"

"Oh, certainly, certainly," answered Mr. Baker, with a sigh of relief.

"Of course, we still have the feathers, legs, crop, and so on of your own goose; so if you wish——"



The man burst into a hearty laugh. "No, sir, I think that, with your permission, I will confine my attentions to the excellent bird upon the sideboard."

Sherlock Holmes glanced sharply across at me with a slight shrug of his shoulders.

"There are your hat and your goose, then," said he. "By the way, would it bore you to tell me where you got the other goose? I am somewhat of a fowl fancier, and I have seldom seen a better goose."

"Certainly, sir," said Baker, who had risen and tucked his newly gained property under his arm. "There are a few of us who frequent the Alpha Inn, near the British Museum. This year our good host, Windigate by name, got up a goose club, by which, on consideration of some few pence every week, we were each to receive a goose at Christmas. My pence were duly paid, and the rest is familiar to you. I am much indebted to you, sir, for a Scotch bonnet is fitted neither to my years nor my gravity." He bowed solemnly to both of us and strode off upon his way.

"So much for Mr. Henry Baker," said Holmes, when he had closed the door behind him. "It is quite certain that he knows nothing whatever about the matter. I suggest that we follow up this clue while it is still hot. Let us eat a bite and then set out at once."

"By all means."

It was a bitter night; so we drew on our ulsters and wrapped cravats about our throats. Outside, the stars were shining coldly in a cloudless sky, and the breath of the passers-by blew out into smoke like so many pistol shots. In a quarter of an hour we were in Bloomsbury at the Alpha Inn, which is a small public house at the corner of one of the streets which runs down into Holborn. Holmes pushed open the

door of the private bar and ordered two glasses of beer from the ruddy-faced, white-aproned landlord.

"Your beer should be excellent if it is as good as your geese," said he.

"My geese!" The man seemed surprised.

"Yes. I was speaking only a half-hour ago to Mr. Henry Baker, a member of your goose club."

"Ah! yes, I see. But you see, sir, them's not *our* geese."

"Indeed! Whose, then?"

"Well, I got the two dozen from a salesman in Covent Garden."

"Indeed? I know some of the salesmen there. Which one was it?"

"Breckinridge is his name."

"Ah! I don't know him. Well, here's your good health, landlord, and prosperity to your house. Good night."

"Now for Mr. Breckinridge," Holmes continued, buttoning up his coat as we came out into the frosty air.

We passed through a zigzag of slums to Covent Garden Market. One of the largest stalls bore the name of Breckinridge upon it, and the proprietor, a man with a sharp face and square jaw, was helping a boy put up the shutters.

"Good evening. It's a cold night," said Holmes.

The salesman nodded and shot a questioning glance at my companion.

"Sold out of geese, I see," continued Holmes, pointing to the bare slabs of marble. "I am sorry, for I was recommended to you."

"Who by?"

"The landlord of the Alpha."

"Oh, yes; I sent him a couple of dozen."



"Fine birds they were, too. Now where did you get them from?"

To my surprise the question provoked a burst of anger from the salesman.

"Now, then, mister," said he, with his head cocked and his eyes sharp, "what are you driving at? Let's have it straight now."

"It is straight enough. I should like to know who sold you the geese which you supplied to the Alpha."

"Well, then, I shan't tell you. So now!"

"Oh, it is a matter of no importance; but I don't know why you should be so warm over such a trifle."

"Warm! You'd be as warm, maybe, if you were as pestered as I am. When I pay good money for a good article, there should be an end of the business; but it's 'Where are the geese?' and 'Who did you sell the geese to?' and 'What will you take for the geese?' One would think they were the only geese in the world, to hear the fuss that is made over them."

"Well, I have no connection with any other people who have been making inquiries," said Holmes carelessly. "If you won't tell us, the bet is off; that is all. But I'm always ready to back my opinion on a matter of fowls, and I have a fiver on it that the bird I ate is country bred."

"Well, then, you've lost your fiver, for it's town bred," snapped the salesman.

"You'll never persuade me to believe that."

"Will you bet, then?"

"It's merely taking your money, for I know that I am right. But I'll have a sovereign on with you, just to teach you not to be obstinate."

The salesman chuckled grimly. "Bring me the books, Bill," said he.

The boy brought round a small thin volume and a great greasy one, laying them out together beneath the hanging lamp.

"Now then, Mr. Cocksure," said the salesman, "I thought that I was out of geese, but before I finish you'll find that there is still one left in my shop. You see this little book?"

"Well?"

"That's the list of the folk from whom I buy. Well, then, here on this page are the countryfolk, and the numbers after their names are where their accounts are in the big ledger. Now, then! You see this other page in red ink? Well, that is a list of my town suppliers. Now, look at that third name. Just read it out to me."

"'Mrs. Oakshott, 117, Brixton Road—249,'" read Holmes.

"Quite so. Now turn that up in the ledger."

Holmes turned to page 249 of the ledger. "Here you

are: 'Mrs. Oakshott, 117, Brixton Road, egg and poultry supplier.'"

"Now, then, what's the last entry?"

"'December 22: Twenty-four geese at 7s. 6d.'"

"Quite so. There you are. And underneath?"

"'Sold to Mr. Windigate of the Alpha, at 12s.'"

"What have you to say now?"

Sherlock Holmes looked deeply chagrined. He drew a sovereign from his pocket and threw it down upon the slab, turning away with the air of a man whose disgust is too deep for words. A few yards off he stopped under a lamppost and laughed in the hearty, noiseless fashion which was peculiar to him.

"I dare say that if I had put £100 down in front of him, that man would not have given me such complete information as was drawn from him by the idea that he was doing me on a wager. Well, Watson, we are, I fancy, nearing the end of our quest, and the only point which remains to be determined is whether we should go on to this Mrs. Oakshott tonight or whether we should reserve it for tomorrow. I should——"

His remarks were suddenly cut short by a hubbub which broke out from the stall which we had just left. Turning round we saw a little rat-faced fellow standing in the center of the circle of yellow light which was thrown by the swinging lamp, while Breckinridge the salesman, framed in the door of his stall, was shaking his fist at the cringing figure.

"I've had enough of you and your geese," he shouted. "I wish you were all at the devil together. If you come pestering me any more with your silly talk, I'll set the dog at you. You bring Mrs. Oakshott here and I'll answer her, but what have you to do with it? Did I buy the geese off you?"

"No; but one of them was mine all the same," whined the little man.

"Well, then, ask Mrs. Oakshott for it."

"She told me to ask you."

"Well, you can ask the King of Prussia, for all I care. I've had enough of it. Get out of here!" He rushed fiercely forward, and the inquirer flitted away into the darkness.

"Ha! this may save us a visit to Brixton Road," whispered Holmes. "Come with me, and we will see what is to be made of this fellow." Striding through the scattered knots of people who lounged round the stalls, my companion speedily overtook the little man and touched him upon the shoulder. The man sprang round, and I could see in the gaslight that every vestige of color had been driven from his face.

"Who are you? What do you want?" he asked in a quavering voice.

"You will excuse me," said Holmes blandly, "but I could not help overhearing the questions which you put to the salesman just now. I think that I could be of assistance to you."

"You? Who are you? How could you know anything of the matter?"

"My name is Sherlock Holmes. It is my business to know what other people don't know."

"But you can know nothing of this!"

"Excuse me, I know everything of it. You are endeavoring to trace some geese which were sold by Mrs. Oakshott, of Brixton Road, to a salesman named Breckinridge, by him in turn to Mr. Windigate, of the Alpha, and by him to his club, of which Mr. Henry Baker is a member."

"Oh, sir, you are the very man whom I have longed

to meet," cried the little fellow, with outstretched hands and quivering fingers. "I can hardly explain to you how interested I am in this matter."

Sherlock Holmes hailed a four-wheeler which was passing. "In that case we had better discuss it in a cozy room rather than in this wind-swept market place," said he. "But pray tell me, before we go farther, who it is that I have the pleasure of assisting."

The man hesitated for an instant. "My name is John Robinson," he answered with a sidelong glance.

"No, no; the real name," said Holmes sweetly. "It is always awkward doing business with an alias."

A flush sprang to the white cheeks of the stranger. "Well, then," said he at length, "my real name is James Ryder."

"Precisely so. Head attendant at the Hotel Cosmopolitan. Pray step into the cab, and I shall soon be able to tell you everything you wish to know."

The little man stood glancing from one to the other of us with half-frightened, half-hopeful eyes. Then he stepped into the cab, and in a half-hour we were back in the sitting room at Baker Street.

"Here we are!" said Holmes cheerily as we filed into the room. "You look cold, Mr. Ryder. Pray take the chair by the fire. I will just put on my slippers before we settle this little matter of yours. Now, then! You want to know what became of those geese?"

"Yes, sir."

"Or rather, I fancy, of that goose. It was one bird, I imagine, in which you were interested—white, with a black bar across the tail."

Ryder quivered with emotion. "Oh, sir," he cried, "can you tell me where it went to?"

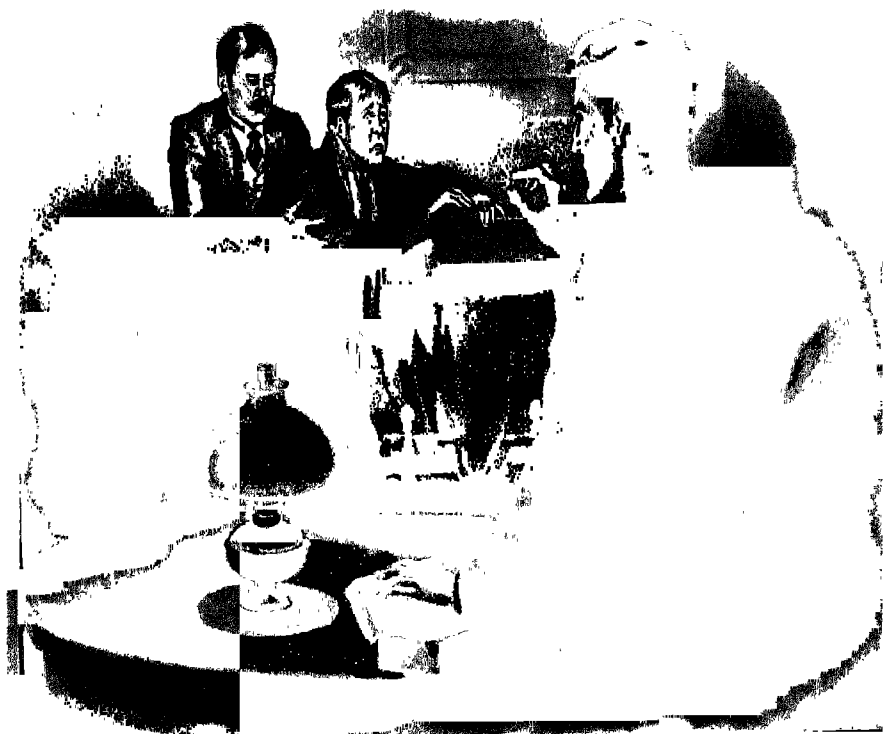
"It came here."

"Here?"

"Yes, and a most remarkable bird it proved. I don't wonder that you should take an interest in it. It laid an egg after it was dead—the bonniest, brightest little blue egg that ever was seen. I have it here in my museum."

Our visitor staggered to his feet and clutched the mantelpiece with his right hand. Holmes unlocked his strongbox and held up the blue carbuncle, which shone out like a star, with a cold, brilliant, many-pointed radiance. Ryder stood glaring with a drawn face, uncertain whether to claim or to disown it.

"The game's up, Ryder," said Holmes quietly. "Hold up, man, or you'll be into the fire! Give him an



arm back into his chair, Watson. Give him a dash of brandy. So! Now he looks a little more human."

For a moment Ryder had staggered and nearly fallen, but the brandy brought a tinge of color into his cheeks, and he sat staring with frightened eyes at his accuser.

"I have almost every link in my hands, and all the proofs which I could possibly need; so there is little which you need tell me. Still, that little may as well be cleared up to make the case complete. You had heard, Ryder, of this blue stone of the Countess of Morcar's?"

"It was Catherine Cusack who told me of it," said he in a crackling voice.

"I see—her ladyship's waiting maid. Well, the temptation of sudden wealth was too much for you, as it has been for better men before you; but you were not very scrupulous in the means you used. You knew that this man Horner, the plumber, had been concerned in some such matter before, and that suspicion would rest the more readily upon him. You and your confederate Cusack managed that he should be the man sent for to do some job. Then, when he had left, you rifled the jewel case, raised the alarm, and had this unfortunate man arrested. You then——"

Ryder threw himself down suddenly and clutched at my companion's knees. "For God's sake, have mercy!" he shrieked. "Think of my father! of my mother! It would break their hearts. I never went wrong before! I never will again. I swear it. I'll swear it on a Bible. Oh, don't bring it into court!"

"Get back into your chair!" said Holmes sternly. "It is very well to cringe and crawl now, but you thought little enough of this poor Horner in the dock for a crime of which he knew nothing."

"I will leave the country, sir. Then the charge against him will break down."

"Hum! We will talk about that later. And now let us hear a true account of the next act. How came the stone into the goose, and how came the goose into the open market? Tell us the truth, for there lies your only hope to safety."

Ryder passed his tongue over his parched lips. "I will tell you it just as it happened, sir," said he. "When Horner had been arrested, it seemed to me that it would be best for me to get away with the stone at once, for I did not know at what moment the police might not take it into their heads to search me and my room. There was no place about the hotel where it would be safe. I went out, and I made for my sister's house. She had married a man named Oakshott, and lived in Brixton Road, where she fattened fowls for the market. All the way there every man I met seemed to me to be a policeman or a detective; and, for all that it was a cold night, the sweat was pouring down my face before I came to the Brixton Road. My sister asked me what was the matter, and why I was so pale; but I told her that I had been upset by the jewel robbery at the hotel. Then I went into the back yard and smoked a pipe and wondered what it would be best to do.

"I had a friend once, called Maudsley, who went to the bad and had just been serving his time in prison. One day we had met and fallen into talk about the ways of thieves and how they could get rid of what they stole. I knew that he would be true to me, for I knew one or two things about him; so I made up my mind to go right on to Kilburn, where he lived, and take him into my confidence. He would show me how

to turn the stone into money. But how to get to him in safety? I thought of the agonies I had gone through in coming from the hotel. I might at any moment be seized and searched, and there would be the stone in my waistcoat pocket. I was leaning against the wall at the time, and looking at the geese which were waddling about round my feet, and suddenly an idea came into my head which showed me how I could beat the best detective that ever lived.

"My sister had told me some weeks before that I might have the pick of her geese for a Christmas present. I would take my goose now, and in it I would carry my stone to Kilburn. There was a little shed in the yard, and behind this I drove one of the birds—a fine big one, white, with a barred tail. I caught it, and, prying its bill open, I thrust the stone down its throat as far as my finger could reach. The bird gave a gulp, and I felt the stone pass along its gullet



and down into its crop. But the creature flapped and struggled, and out came my sister to know what was the matter. As I turned to speak to her, the goose broke loose and fluttered off among the others.

“‘Whatever were you doing with that bird, Jem?’ says she.

“‘Well,’ said I, ‘you said you’d give me one for Christmas, and I was feeling which was the fattest.’

“‘Oh,’ says she, ‘we’ve set yours aside for you. It’s the big white one over yonder.’

“‘Thank you, Maggie,’ says I; ‘but if it is all the same to you, I’d rather have that one I was handling just now.’

“‘The other is a good three pound heavier,’ said she.

“‘Never mind. I’ll have the other, and I’ll take it now,’ said I.

“‘Which is it you want, then?’ said she.

“‘That white one with the barred tail, right in the middle of the flock.’

“‘Oh, very well. Kill it and take it with you.’

“Well, I did what she said, Mr. Holmes, and I carried the bird all the way to Kilburn. I told my pal what I had done, for he was a man that it was easy to tell a thing like that to. He laughed until he choked, and we got a knife and opened the goose. My heart turned to water, for there was no sign of the stone, and I knew that some terrible mistake had occurred. I left the bird, rushed back to my sister’s, and hurried into the back yard. There was not a bird to be seen there.

“‘Where are they all, Maggie?’ I cried.

“‘Gone to the dealer’s, Jem.’

“‘Which dealer’s?’

“‘Breckinridge, of Covent Garden.’

"'But was there another with a barred tail?' I asked, 'the same as the one I chose?'"

"'Yes, Jem; there were two barred-tailed ones, and I could never tell them apart.'"

"Well, then, of course I saw it all, and I ran off as hard as my feet would carry me to this man Breckinridge; but he had sold the lot at once, and not one word would he tell me as to where they had gone. You heard him yourselves tonight. Well, he has always answered me like that. My sister thinks that I am going mad. Sometimes I think that I am myself. And now—and now I am myself a branded thief, without ever having touched the wealth for which I sold my character. God help me!" He burst into convulsive sobbing, with his face in his hands.

There was a long silence, broken only by his heavy breathing and by the measured tapping of Sherlock Holmes' finger tips upon the edge of the table. Then my friend rose and threw open the door.

"Get out!" said he.

"What, sir! Oh, heaven bless you!"

"No more words. Get out!"

And no more words were needed. There was a rush, a clatter upon the stairs, the bang of a door, and the crisp rattle of running footfalls from the street.

"After all, Watson," said Holmes, reaching up his hand for his clay pipe, "if Horner were in danger, it would be another thing; but this fellow will not appear against him, and the case must collapse. Ryder will not go wrong again; he is too terribly frightened. Send him to jail now, and you make him a jailbird for life. Besides, it is the season of forgiveness. Chance has put in our way a most singular problem, and its solution is its own reward."



How They Brought the Good News from Ghent to Aix

by ROBERT BROWNING

I SPRANG to the stirrup, and Joris, and he;
I galloped, Dirck galloped, we galloped all three;
"Good speed!" cried the watch, as the gatebolts
undrew;
"Speed!" echoed the wall to us galloping through;
Behind shut the postern, the lights sank to rest,
And into the midnight we galloped abreast.

Not a word to each other; we kept the great pace
Neck by neck, stride by stride, never changing our place;
I turned in my saddle and made its girths tight,
Then shortened each stirrup, and set the pique right,
Rebuckled the cheek strap, chained slacker the bit,
Nor galloped less steadily Roland a whit.

'Twas moonset at starting; but while we drew near
Lokeren, the cocks crew and twilight dawned clear;
At Boom, a great yellow star came out to see;

At Düffeld, 'twas morning as plain as could be;
And from Mecheln church steeple we heard the half-
chime,
So Joris broke silence with, "Yet there is time!"

At Aershot, up leaped of a sudden the sun,
And against him the cattle stood black every one,
To stare through the mist at us galloping past,
And I saw my stout galloper Roland at last,
With resolute shoulders, each butting away
The haze, as some bluff river headland its spray:

And his low head and crest, just one sharp ear bent back
For my voice, and the other pricked out on his track;
And one eye's black intelligence—ever that glance
O'er its white edge at me, his own master, askance!
And the thick heavy spume flakes which aye and anon
His fierce lips shook upwards in galloping on.

By Hasselt, Dirck groaned; and cried Joris, "Stay
spur!
Your Roos galloped bravely, the fault's not in her;
We'll remember at Aix"—for one heard the quick
wheeze
Of her chest, saw the stretched neck and staggering
knees,
And sunk tail, and horrible heave of the flank,
As down on her haunches she shuddered and sank.

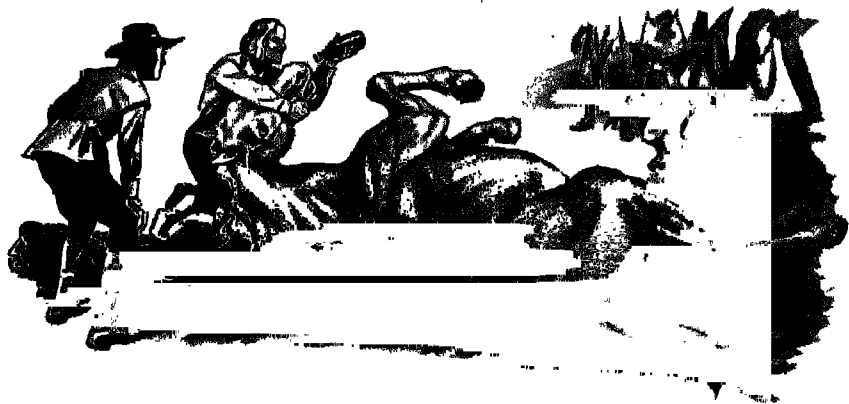
So, we were left galloping, Joris and I,
Past Looz and past Tongres, no cloud in the sky;
The broad sun above laughed a pitiless laugh,
'Neath our feet broke the brittle bright stubble like
chaff;

Till over by Dalhem a dome spire sprang white,
And "Gallop," gasped Joris, "for Aix is in sight!"

"How they'll greet us!"—and all in a moment his roan
Rolled neck and croup over, lay dead as a stone;
And there was my Roland to bear the whole weight
Of the news which alone could save Aix from her fate,
With his nostrils like pits full of blood to the brim,
And with circles of red for his eye-sockets' rim.

Then I cast loose my buffcoat, each holster let fall,
Shook off both my jackboots, let go belt and all,
Stood up in the stirrup, leaned, patted his ear,
Called my Roland his pet name, my horse without peer;
Clapped my hands, laughed and sang, any noise, bad
or good,
Till at length into Aix Roland galloped and stood.

And all I remember is—friends flocking round
As I sat with his head 'twixt my knees on the ground;
And no voice but was praising this Roland of mine,
As I poured down his throat our last measure of wine,
Which (the burgesses voted by common consent)
Was no more than his due who brought good news
from Ghent.



The Cratchits' Christmas Dinner

by CHARLES DICKENS

UP ROSE Mrs. Cratchit, Bob Cratchit's wife, dressed out but poorly in a twice-turned gown, but brave in ribbons, which are cheap and make a goodly show for sixpence; and she laid the cloth, assisted by Belinda Cratchit, second of her daughters, also brave in ribbons; while Master Peter Cratchit plunged a fork into the saucepan of potatoes, and, getting the corners of his monstrous shirt collar (Bob's private property, conferred upon his son and heir in honor of the day) into his mouth, rejoiced to find himself so gallantly attired, and yearned to show his linen in the fashionable parks. And now two smaller Cratchits, boy and girl, came tearing in, screaming that outside the baker's they had smelt the goose and known it for their own; and basking in luxurious thoughts of sage-and-onion, these young Cratchits danced about the table and exalted Master Peter Cratchit to the skies, while he (not proud, although his collars nearly choked him) blew the fire until the slow potatoes, bubbling up, knocked loudly at the saucepan lid to be let out and peeled.

"What has ever got your precious father then?" said Mrs. Cratchit. "And your brother, Tiny Tim! And Martha warn't as late last Christmas Day by half an hour!"

"Here's Martha, Mother!" said a girl, appearing as she spoke.

"Here's Martha, Mother!" cried the two young Cratchits. "Hurrah! There's *such* a goose, Martha!"

"Why, bless your heart alive, my dear, how late you are!" said Mrs. Cratchit, kissing her a dozen times and taking off her shawl and bonnet for her with officious zeal.

"We'd a deal of work to finish up last night," replied the girl, "and had to clear away this morning, Mother!"

"Well! Never mind so long as you are come," said Mrs. Cratchit. "Sit ye down before the fire, my dear, and have a warm, Lord bless ye!"

"No, no! There's Father coming," cried the two young Cratchits, who were everywhere at once. "Hide, Martha, hide!"

So Martha hid herself, and in came little Bob, the father, with at least three feet of comforter, exclusive of the fringe, hanging down before him; and his threadbare clothes darned up and brushed, to look seasonable; and Tiny Tim upon his shoulder. Alas for Tiny Tim, he bore a little crutch, and had his limbs supported by an iron frame.

"Why, where's our Martha?" cried Bob Cratchit, looking around.



"Not coming," said Mrs. Cratchit.

"Not coming!" said Bob, with a sudden declension in his high spirits; for he had been Tim's blood horse all the way from church and had come home rampant. "Not coming upon Christmas Day!"

Martha didn't like to see him disappointed, if it were only in joke; so she came out prematurely from behind the closet door and ran into his arms, while the two young Cratchits hustled Tiny Tim and bore him off into the wash-house, that he might hear the pudding singing in the copper.

"And how did little Tim behave?" asked Mrs. Cratchit, when she had rallied Bob on his credulity, and Bob had hugged his daughter to his heart's content.

"As good as gold," said Bob, "and better. Somehow he gets thoughtful, sitting by himself so much, and thinks the strangest things you ever heard. He told me, coming home, that he hoped the people saw him in the church, because he was a cripple, and it might be pleasant to them to remember, upon Christmas Day, who made lame beggars walk and blind men see."

Bob's voice was tremulous when he told them this, and trembled more when he said that Tiny Tim was growing strong and hearty.

His active little crutch was heard upon the floor, and back came Tiny Tim before another word was spoken, escorted by his brother and sister to his stool before the fire; and while Bob, turning up his cuffs—as if, poor fellow, they were capable of being made more shabby—compounded some hot mixture in a jug with gin and lemons, and stirred it round and round and put it on the hob to simmer, Master Peter and the two ubiquitous young Cratchits went to fetch the goose, with which they soon returned in high procession.

Such a bustle ensued that you might have thought a goose the rarest of all birds; a feathered phenomenon, to which a black swan was a matter of course—and in truth it was something very like it in that house. Mrs. Cratchit made the gravy (ready beforehand in a little saucepan) hissing hot; Master Peter mashed the potatoes with incredible vigor; Miss Belinda sweetened up the applesauce; Martha dusted the hot plates; Bob took Tiny Tim beside him in a tiny corner at the table; the two young Cratchits set chairs for everybody, not forgetting themselves, and, mounting guard upon their posts, crammed spoons into their mouths, lest they should shriek for goose before their turn came to be helped. At last the dishes were set on,



and grace was said. It was succeeded by a breathless pause, as Mrs. Cratchit, looking slowly all along the carving knife, prepared to plunge it into the breast; but when she did, and when the long expected gush of stuffing issued forth, one murmur of delight arose all around the board, and even Tiny Tim, excited by the two young Cratchits, beat on the table with the handle of his knife, and feebly cried, "Hurrah!"

There never was such a goose. Bob said he didn't believe there ever was such a goose cooked. Its tenderness and flavor, size and cheapness, were the themes of universal admiration. Eked out by the applesauce and mashed potatoes, it was a sufficient dinner for the whole family; indeed, as Mrs. Cratchit said with great delight (surveying one small atom of a bone upon the dish) they hadn't eaten it all at last! Yet every one had had enough, and the youngest Cratchits in particular were steeped in sage and onion to the eyebrows! But now, the plates being changed by Miss Belinda, Mrs. Cratchit left the room alone—too nervous to bear witnesses—to take the pudding up and bring it in.

Suppose it should not be done enough! Suppose it should break in turning out! Suppose somebody should have got over the wall of the back yard and stolen it while they were merry with the goose—a supposition at which the two young Cratchits became livid! All sorts of horrors were supposed.

Hallo! A great deal of steam! The pudding was out of the copper. A smell like a washing-day. That was the cloth. A smell like an eating house and a pastry cook's next door to each other, with a laundress' next door to that! That was the pudding!

In half a minute Mrs. Cratchit entered—flushed but smiling proudly—with the pudding, like a speckled cannon ball, so hard and firm, blazing in half of half-a-quartern of lighted brandy and bedight with Christmas holly stuck into the top.

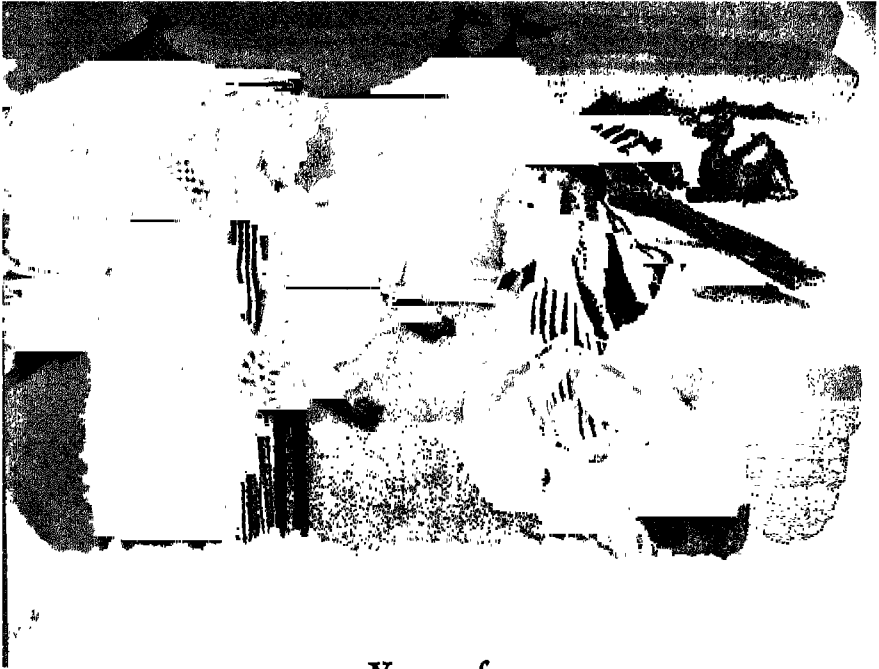
Oh, a wonderful pudding! Bob Cratchit said, and calmly too, that he regarded it as the greatest success achieved by Mrs. Cratchit since their marriage. Mrs. Cratchit said that, now the weight was off her mind, she would confess she had had her doubts about the quantity of flour. Everybody had something to say about it, but nobody said or thought it was at all a small pudding for a large family. It would have been flat heresy to do so. Any Cratchit would have blushed to hint at such a thing.

At last the dinner was all done, the cloth was cleared, the hearth swept, and the fire made up. The compound in the jug being tasted and considered perfect, apples and oranges were put upon the table, and a shovelful of chestnuts on the fire. Then all the Cratchit family drew around the hearth, in what Bob Cratchit called a circle, meaning half a one; and at Bob Cratchit's elbow stood the family display of glass, two tumblers, and a custard cup without a handle.

These held the hot stuff from the jug, however, as well as golden goblets would have done; and Bob served it out with beaming looks, while the chestnuts on the fire sputtered and cracked noisily. Then Bob proposed:

"A Merry Christmas to us all, my dears. God bless us!" Which all the family reëchoed.

"God bless us every one!" said Tiny Tim, the last of all.



Yussouf

by JAMES RUSSELL LOWELL

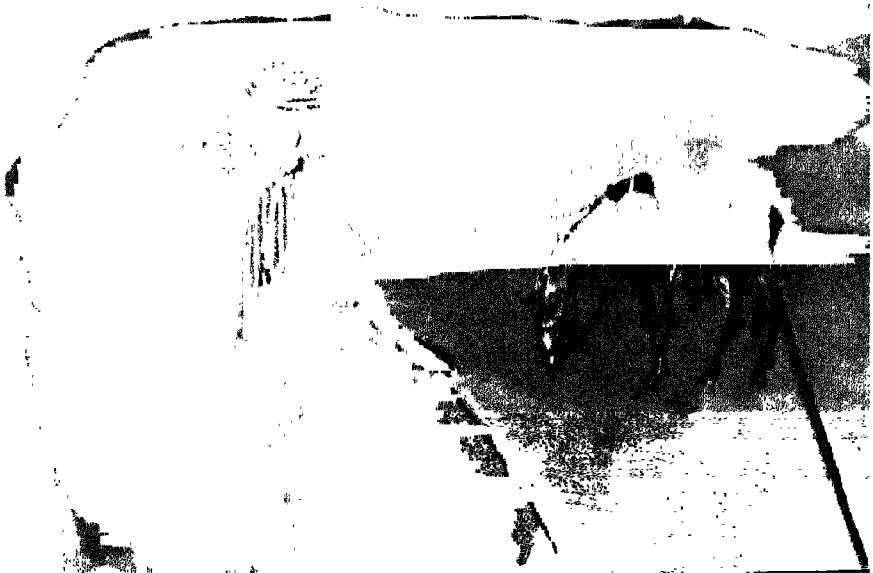
A STRANGER came one night to Yussouf's tent,
Saying, "Behold one outcast and in dread,
Against whose life the bow of power is bent,
Who flies, and hath not where to lay his head;
I come to thee for shelter and for food—
To Yussouf, called through all our tribes, 'The
Good.'"

"This tent is mine," said Yussouf, "but no more
Than it is God's; come in, and be at peace;
Freely shalt thou partake of all my store
As I of His who buildeth over these
Our tents His glorious roof of night and day,
And at whose door none ever yet heard 'Nay.'"

So Yussouf entertained his guest that night,
 And, waking him ere day, said, "Here is gold;
 My swiftest horse is saddled for thy flight;
 Depart before the prying day grow bold."
 As one lamp lights another, nor grows less,
 So nobleness enkindleth nobleness.

That inward light the stranger's face made grand,
 Which shines from all self-conquest; kneeling low,
 He bowed his forehead upon Yussouf's hand,
 Sobbing, "O Sheik, I cannot leave thee so;
 I will repay thee; all this thou hast done
 Unto that Ibrahim who slew thy son!"

"Take thrice the gold," said Yussouf, "for with
 thee
 Into the desert, never to return,
 My one black thought shall ride away from me.
 First-born, for whom by day and night I yearn,
 Balanced and just are all of God's decrees;
 Thou art avenged, my first-born; sleep in peace!"



The Swineherd

by HANS CHRISTIAN ANDERSEN

ONCE upon a time there was a poor Prince, who owned a kingdom. It was quite a tiny one, but still large enough to enable him to marry—and marry he would. We must admit that it was rather daring of him to say to the Emperor's daughter, "Will you have me?" But that's just how daring he was, for his name was famous throughout the world. Hundreds of princesses would gladly have said, "Yes, and thank you for asking me!" But did she?

Well, we shall see.

By the grave of the Prince's father there grew a rose tree. Oh, such a lovely rose tree! It blossomed only once every five years, and then it had only one single flower, but that was a rose whose fragrance was so wonderful that it made you forget all your cares and troubles.

The Prince also had a nightingale which could sing as though all the world's beautiful melodies were hidden in its little throat. This rose and this nightingale were to be his gifts to the Princess, and so they were put in two large silver caskets and sent to her. The Emperor had them carried before him as he went into the great hall, where the Princess and her ladies in waiting were playing at receiving visitors—they never did anything else—and when she saw the large caskets with the gifts, she clapped her hands in sheer delight. "Oh, if it were only a tiny little kitten!" she said—but out came the beautiful rose.

"Fancy! how prettily it is made!" said all the ladies in waiting.

"It's more than pretty," said the Emperor, "it's lovely!" But the Princess felt it and almost burst into tears.

"Fie, Papa! It's not artificial—it's *real*!"

"Fie!" repeated all the ladies; "it's *real*!"

"Well," said the Emperor, "let's see what the other casket contains before we lose our tempers."

Then the nightingale appeared. It sang so beautifully that they could find nothing to say against it at first.

"*Superbe!*" "*Charmant!*" exclaimed the ladies, who all spoke French, each one worse than the other.

"How that bird reminds me of our late Empress' musical box!" said an old courtier. "Yes, yes, it's exactly the same tone, the same interpretation."

"Exactly!" said the Emperor, and he wept like a little child.

"You don't mean to say that it's a real bird?" said the Princess.

"Indeed it *is* a real bird," said the messengers who had brought it.

"Then let it go," said the Princess, and on no account would she allow the Prince to come into her presence. But he was not to be put off so easily. He smeared his face with brown and black, pulled his cap down over his eyes, and knocked at the door.

"Hello! How do you do, Emperor?" he said. "Could you give me a job here at the palace?"

"Well—we get so many people applying for work," said the Emperor. "But let me see—I do want someone to look after the pigs, because we've got such a lot of them."

And so the Prince was made "Swineherd by appointment to His Majesty."

He was given a wretched little room near the pigsties, and there he had to live. He worked hard all day long, and by evening he had made a pretty little pot edged with tinkling bells, and as soon as the pot boiled the bells tinkled beautifully and played the old tune:

*Ach, du lieber Augustin,
Alles ist weg, weg, weg!*

But the most ingenious part of it all was that when you put your finger into the steam from the pot, you could smell at once what food was being prepared in every kitchen in the town. What was a mere rose compared with that!

Now the Princess came walking by with all her ladies in waiting, and when she heard the tune she stood still and looked very pleased, because she, too, could play *Ach, du lieber Augustin*. It was the only tune she knew, and she played it with one finger.

"Oh! that's the tune I know," she said. "Why, he must be an educated swineherd! Listen! Go and ask him the price of that instrument."

One of the ladies was obliged to run into the pig-gery, but she was careful to put on a pair of pattens first. "How much do you want for that pot?" asked the lady.

"I want ten kisses from the Princess," answered the swineherd.

"Well, I never!" exclaimed the lady.

"And I won't take less," said the swineherd.

"Well, what does he say?" asked the Princess.

"I really can't repeat it," said the lady. "It's too shocking!"

"Then you can whisper it to me!" And the lady whispered.

"Oh, isn't he naughty!" said the Princess, and she walked away at once, but after having gone a few steps, she heard the bells ring out again so prettily:

*Ach, du lieber Augustin,
Alles ist weg, weg, weg!*

"Listen, ask him if he will take ten kisses from my ladies, instead," said the Princess.

"No, thank you!" said the swineherd. "Ten kisses from the Princess, or I keep my pot!"

"Now, isn't that annoying!" said the Princess. "Well, then—you'll have to stand in front of me so that we shan't be seen."

The ladies placed themselves in front of her, spread out their big hoop skirts, and the swineherd got ten kisses, and she got the pot.



And then the fun began!

The whole evening and all day long the pot was kept boiling. There was no dinner cooked in the entire town which they didn't know about—from the Lord Chamberlain's down to the cobbler's. The ladies danced about and clapped their hands.

"We know who's going to have soup and pancakes; we know who's going to have boiled rice and hash! Isn't it thrilling?"

"Most thrilling!" declared the Mistress of the Robes.

"Yes, but don't breathe a word about it," said the Princess, "because I am the Emperor's daughter."

"Heaven forbid!" they all said.

But the swineherd, that is to say the Prince—of course they didn't know he wasn't a real swineherd—hadn't let the day go by without making something. This time he had made a rattle. When he twirled it you could hear all the waltzes, jigs, and polkas that had been known since the creation of the world.

"It's superb!" said the Princess as she passed by. "Never have I heard anything more lovely! Listen! Go and ask him the price of that instrument—but mind, I'm not going to do any more kissing."

"He demands one hundred kisses from the Princess," said the lady who had been in to ask.

"Well, he must be mad!" said the Princess, and she walked on. But when she had gone a few steps, she stopped. "After all, one must patronize the arts," she said. "I am the Emperor's daughter. Tell him he can have ten kisses as yesterday. The rest he may take from my ladies in waiting."

"Oh! but we should hate that!" said the ladies.

"Nonsense!" answered the Princess. "If I can

kiss him, I'm sure you can. Remember I give you board and wages." And the lady had to return to the piggery.

"One hundred kisses from the Princess," said the swineherd, "or the bargain is off."

"Hide me!" said the Princess—and the ladies in waiting placed themselves in front of her, and he began taking his kisses.

"What on earth is going on down at the piggery?" asked the Emperor, who had come out onto his balcony. He rubbed his eyes and put on his spectacles.

"Bless me, if it isn't the ladies in waiting up to their tricks again! I'd better go and see."

Then he pulled up his slippers, which he had trodden down at the heels. My stars, how he hurried.

As soon as he came down into the yard he walked very softly. The ladies were busy counting the kisses to see fair play, so that there should be neither too many nor too few; they hadn't the faintest suspicion of the Emperor's presence.

He raised himself on tiptoe.

"Well, I declare!" he said, when he saw them kissing, and he smacked them on the head with his slipper, just as the swineherd got kiss number eighty-six.

"Out you go!" said the Emperor, for he was very angry. And both Princess and swineherd were put outside his empire.

There she stood crying, while the swineherd fumed, and the rain poured down.

"Poor miserable me!" said the Princess. "If only I had accepted the handsome Prince! I am very, very unhappy!"

Then the swineherd stepped behind a tree, wiped

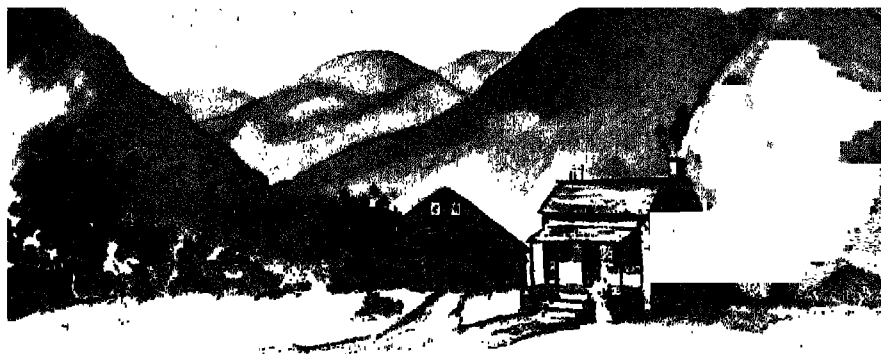
the brown and black from his face, and threw away his shabby clothes, and appeared in his princely splendor so magnificent that the Princess, in spite of herself, curtsayed very low.

"I have come to despise you, my beauty," he said. "You refused an honorable Prince, you did not appreciate the rose or the nightingale, but you kissed a swineherd for the sake of a miserable tinkling toy. You have got just what you deserve!"

Then the Prince went into his kingdom, shut the door and bolted it, and for all he cared, she might stay outside and sing:

*Ach, du lieber Augustin,
Alles ist weg, weg, weg!*





The Legend of Sleepy Hollow

by WASHINGTON IRVING

IN THE bosom of one of those spacious coves which indent the eastern shore of the Hudson, there lies a small market town which is known by the name of Tarrytown. Not far from this village, perhaps about two miles, there is a little valley among high hills, which is one of the quietest places in the whole world. A small brook glides through it, with just murmur enough to lull one to repose.

This sequestered glen has long been known by the name of Sleepy Hollow. A drowsy, dreamy influence seems to hang over the neighboring land. Some say that an old Indian chief, the prophet of his tribe, held his powwows there before the country was discovered by Master Hendrick Hudson. Certain it is, the place still continues under the sway of some witching power that holds a spell over the minds of the good people, causing them to walk in a continual reverie. They are given to all kinds of marvelous beliefs and frequently see strange sights and hear music and voices in the air.

The dominant spirit, however, that haunts this enchanted region is the apparition of a figure on horseback without a head. It is said by some to be the ghost of a Hessian trooper whose head had been carried away by a cannon ball in some nameless battle during the Revolutionary War, and who is ever and anon seen by the countryfolk hurrying along in the gloom of night as if on the wings of the wind. His haunts are not confined to the valley, but extend at times to the adjacent roads, and especially to the vicinity of a church at no great distance. Indeed, certain historians of those parts, who have been careful in collecting the floating facts concerning this specter, allege that the body of the trooper having been buried in the churchyard, the ghost rides forth to the scene of battle in nightly quest of his head. The specter is known at all the country firesides by the name of the Headless Horseman of Sleepy Hollow.

In a remote period of American history, a worthy wight of the name of Ichabod Crane sojourned in Sleepy Hollow for the purpose of instructing the children of the vicinity. He was a native of Connecticut, a state which sends forth yearly its legions of frontier woodsmen and country schoolmasters. Crane was tall, but exceedingly lank, with narrow shoulders, long arms and legs, hands that dangled a mile out of his sleeves, feet that might have served for shovels, and his whole frame most loosely hung together. His head was small and flat at top, with huge ears, large green glassy eyes, and a long snipe nose, so that it looked like a weathercock perched upon his spindle neck to tell which way the wind blew. To see him riding along on a windy day with his clothes

bagging and fluttering about him one might have mistaken him for some scarecrow eloped from a cornfield.

His schoolhouse was a low building of one large room, rudely constructed of logs, the windows partly glazed and partly patched with leaves of old copy-books. It stood just at the foot of a woody hill, with a brook running close by and a formidable birch tree growing at one end of it. From hence the low murmur of his pupils' voices conning over their lessons might be heard in a drowsy summer's day, like the hum of a beehive, interrupted now and then by the voice of the master in the tone of menace or command, or, peradventure, by the appalling sound of the birch as he urged some tardy loiterer along the flowery path of knowledge. Truth to say, he ever bore in mind the golden maxim, "Spare the rod and spoil the child." Ichabod Crane's scholars certainly were not spoiled.

When school hours were over, however, he was the companion and playmate of the larger boys, and on holiday afternoons would convey home some of the smaller ones who happened to have pretty sisters or mothers noted for the comforts of the cupboard. Indeed it behooved him to keep on good terms with his pupils. The revenue arising from his school was small, and would have been scarcely sufficient to furnish him with daily bread, for he was a huge feeder, though lank; but to help out with his maintenance, he was, according to the custom in those parts, boarded and lodged at the houses of the farmers whose children he instructed. With these he lived successively a week at a time.

That all this might not be too onerous on the purses of his rustic patrons, he had various ways of rendering himself both useful and agreeable. He

assisted the farmers occasionally in the lighter labors of their farms: helped to make hay; mended the fences; took the horses to water; drove the cows from pasture; and cut wood for the winter's fire. He laid aside, too, all the absolute sway with which he lorded it in his school and became wonderfully gentle. He found favor in the eyes of the mothers by petting the children, particularly the youngest; and he would sit with a child on one knee and rock a cradle with his foot for whole hours together.

In addition to his other vocations, he was the singing master of the neighborhood, and picked up many bright shillings by instructing the young folks in psalm singing. It was a matter of no little vanity to him on Sundays to take his station in front of the church gallery, with a band of chosen singers, where, in his own mind, he completely carried away the palm from the parson. Certain it is, his voice resounded far above all the rest of the congregation.



His appetite for the marvelous, and his powers of digesting it, were equally extraordinary; and both had been increased by his residence in this spell-bound region. No tale was too gross or monstrous for his capacious swallow. It was often his delight to pass long winter evenings with the old Dutch wives as they sat spinning by the fire, with a row of apples roasting and spluttering along the hearth, and listen to their marvelous tales of ghosts and goblins, and haunted fields, and haunted brooks, and haunted bridges, and haunted houses, and particularly of the headless horseman, or Galloping Hessian of the Hollow as they sometimes called him.

But if there was a pleasure in all this while snugly cuddling in the chimney corner, where, of course, no specter dared to show his face, it was dearly purchased by the terrors of his subsequent walk homeward. What fearful shapes and shadows beset his path amidst the dim and ghastly glare of a snowy night!—With what wistful look did he eye every trembling ray of light streaming across the waste fields from some distant window!—How often was he appalled by some shrub covered with snow, which, like a sheeted specter, beset his very path!—How often did he dread to look over his shoulder lest he should behold some uncouth being tramping close behind him!—And how often was he thrown into complete dismay by some rushing blast, howling among the trees, in the idea that it was the Galloping Hessian on one of his nightly scourings!

All these, however, were mere terrors of the night, and he would have passed a pleasant life of it, in despite of the devil and all his works, if his path had not been crossed by a being that causes more

perplexity to mortal man than ghosts, goblins, and the whole race of witches put together, and that was—a woman.

Among his musical disciples was Katrina Van Tassel, the daughter and only child of a substantial Dutch farmer. She was a blooming lass of fresh eighteen, plump as a partridge, rosy-cheeked as one of her father's peaches, and universally famed for her beauty. She was withal a little of a coquette, as might be perceived even in her dress, which was a mixture of ancient and modern fashions, as most suited to set off her charms.

Ichabod Crane had a soft and foolish heart toward the sex; and it was not to be wondered at that so tempting a morsel soon found favor in his eyes, more especially after he had visited her in her father's mansion. Old Baltus Van Tassel was a perfect picture of a thriving, liberal-hearted farmer. He seldom, it is true, sent either his eyes or his thoughts beyond the boundaries of his own farm; but within those everything was snug, happy, and well conditioned. His stronghold was situated on the banks of the Hudson, in one of those green, sheltered, fertile nooks in which the Dutch farmers are so fond of nestling. A great elm tree spread its broad branches over it; at the foot of which bubbled up a spring of the softest and sweetest water, in a little well formed by a barrel. Hard by the farmhouse was a vast barn, every window and crevice of which seemed bursting forth with the treasures of the farm. Sleek porkers were grunting in the repose of their pens. Stately squadrons of geese and ducks were riding in an adjoining pond; regiments of turkeys were gobbling through the farmyard.

The pedagogue's mouth watered as he looked upon

this promise of sumptuous winter fare. In his devouring mind's eye, he pictured to himself every roasting pig running about with an apple in its mouth; the pigeons were snugly put to bed in a comfortable pie and tucked in with a coverlet of crust; the geese were swimming in their own gravy, and the ducks pairing cozily in dishes.

As the enraptured Ichabod fancied all this, and as he rolled his great green eyes over Van Tassel's fat meadowlands, the rich fields of wheat, of rye, of buckwheat, and Indian corn, and the orchards burdened with ruddy fruit, his heart yearned after the damsel who was to inherit these domains.

When he entered the house, the conquest of his heart was complete. It was one of those spacious farmhouses built in the style handed down from the first Dutch settlers, the low, projecting eaves forming a piazza along the front. Under this were hung flails, harness, and nets for fishing in the neighboring river. Benches were built along the sides for summer use; and a great spinning wheel at one end and a churn at the other showed the various uses to which this important porch might be devoted. From this piazza the wondering Ichabod entered the hall. Here, rows of resplendent pewter, ranged on a long dresser, dazzled his eyes. In one corner stood a huge bag of wool ready to be spun; in another a quantity of linsey-woolsey just from the loom.

Ears of Indian corn and strings of dried apples and peaches hung in gay festoons along the walls, mingled with the gaud of red peppers. A door left ajar gave him a peep into the best parlor, where the claw-footed chairs and dark mahogany tables shone like mirrors. Conch shells decorated the mantelpiece;



strings of various colored birds' eggs were suspended above it; a great ostrich egg was hung from the center of the room; and a corner cupboard displayed immense treasures of old silver and well-mended china.

From the moment Ichabod laid his eyes upon these regions of delight the peace of his mind was at an end, and his only study was how to gain the affections of the peerless daughter of Van Tassel. In this enterprise, however, he had more real difficulties than generally fell to the lot of a knight-errant of yore, who seldom had anything but giants, enchanters, fiery dragons, and such-like easily conquered adversaries to contend with. Ichabod, on the contrary, had to win his way to the heart of a country coquette, and he had to encounter a host of fearful adversaries,

the numerous rustic admirers who kept a watchful and hungry eye upon each other.

Among these suitors the most formidable was a burly blade of the name of Brom Van Brunt, the hero of the country round, which rang with his feats of strength and hardihood. He was broad-shouldered and double-jointed, with short curly black hair, and a bluff but not unpleasant countenance. From his great powers of limb he had received the nickname of Brom Bones. He was famed for great knowledge and skill in horsemanship. He was always ready for either a fight or a frolic. He had three or four boon companions who regarded him as their model, and at the head of whom he scoured the country, attending every scene of feud or merriment for miles around. Sometimes his crew would be heard dashing along past the farmhouses at midnight, with whoop and halloo, and the old dames, startled out of their sleep, would listen for a moment till the hurry-scurry had clattered by, and then exclaim, "Aye, there goes Brom Bones and his gang!"

This hero had for some time singled out the blooming Katrina for the object of his gallantries, and it was whispered that she did not altogether discourage his hopes. When his horse was seen tied to Van Tassel's paling on a Sunday night, all other suitors passed by in despair.

Such was the formidable rival with whom Ichabod Crane had to contend, and, considering all things, a wiser man than he would have despaired. To have taken the field openly against his rival would have been madness. Ichabod, therefore, made his advances in a quiet manner. Under cover of his character of singing master he made frequent visits at the farm;

he carried on his suit with Katrina Van Tassel as they sat by the side of the spring under the great elm or sauntered along in the twilight, that hour so favorable to the lover's eloquence.

I profess not to know how women's hearts are wooed and won. Certain it is, from the moment Ichabod Crane made his advances, the fortunes of Brom Bones evidently declined and a deadly feud gradually arose between him and the schoolmaster of Sleepy Hollow.

Brom would fain have carried matters to open warfare and have settled their pretensions to the lady by single combat, but Ichabod was too wary to give him an opportunity. Brom had no alternative but to play off boorish practical jokes upon his rival. Ichabod became the object of whimsical persecution to Bones and his gang of roughriders. They smoked out his singing school by stopping up the chimney, and broke into the schoolhouse at night and turned everything topsy-turvy. But what was still more annoying, Brom had a scoundrel dog whom he taught to whine in the most ludicrous manner when Ichabod instructed Katrina Van Tassel in singing.

In this way matters went on for some time. On a fine autumnal afternoon Ichabod, in pensive mood, sat on a lofty stool in the schoolroom. In his hand he swayed a ruler; the birch of justice reposed on three nails, a constant terror to evildoers; while on the desk before him might be seen sundry contraband articles and prohibited weapons, detected upon the persons of idle urchins, such as half-munched apples, popguns, whirligigs, fly-cages, and little paper gamecocks. Apparently there had been some appalling act of justice recently inflicted, for his scholars were all busily intent upon their books or

slyly whispering behind them with one eye kept upon the master, and a kind of buzzing stillness reigned throughout the schoolroom. It was suddenly interrupted by the appearance of a man who came clattering up to the school door with an invitation to Ichabod to attend a merrymaking or "quilting frolic" to be held that evening at Mynheer Van Tassel's.

All was now bustle and hubbub in the late quiet schoolroom. The scholars were hurried through their lessons without stopping at trifles. Books were flung aside without being put away on the shelves, ink-stands were overturned, benches thrown down, and the whole school was turned loose an hour before the usual time, bursting forth like a legion of young imps, yelping in joy.

The gallant Ichabod now spent at least a half-hour brushing and furbishing up his best and indeed only suit and arranging his looks by a bit of broken looking glass. That he might make his appearance before his mistress in the true style of a cavalier, he borrowed a horse from the farmer with whom he lived, a choleric old Dutchman of the name of Hans Van Ripper. The animal he gallantly mounted was a broken-down plow horse that had outlived almost everything but his viciousness. He was gaunt and shagged, with a ewe neck and a head like a hammer. His rusty mane and tail were tangled and knotted with burrs; one eye had lost its pupil, but the other had the gleam of a genuine devil in it. Still he must have had fire and mettle in his day, if we may judge from the name he bore of Gunpowder.

Ichabod was a suitable figure for such a steed. He rode with short stirrups, which brought his knees

nearly up to the pommel of the saddle; his sharp elbows stuck out like a grasshopper's; he carried his whip perpendicularly in his hand, and, as his horse jogged on, the motion of his arms was not unlike the flapping of a pair of wings. A small wool hat rested on the top of his nose, for so his scanty strip of forehead might be called; and the skirts of his coat fluttered out almost to the horse's tail. Such was the appearance of Ichabod and his steed, and it was altogether such an apparition as is seldom to be met with in broad daylight.

It was, as I have said, a fine autumnal day; the sky was clear and serene, and the forests had put on their sober brown and yellow. Streaming files of wild ducks began to make their appearance high in the air; the bark of the squirrel might be heard from the groves of beech and hickory trees, and the pensive whistle of the quail at intervals from the neighboring stubble field.

As Ichabod jogged slowly on, the sun gradually wheeled his broad disk down into the west.

It was toward evening that he arrived at the castle of the Heer Van Tassel, which he found thronged with the pride and flower of the adjacent country. Brom Bones, however, was the hero of the scene, having come to the gathering on his favorite steed Daredevil, a creature, like himself, full of mettle and mischief, and which no one but himself could manage. He was, in fact, noted for preferring vicious animals given to all kinds of tricks, which kept the rider in constant risk of his neck.

Fain would I pause to dwell upon the world of charms that burst upon the enraptured gaze of my hero as he entered the parlor of Van Tassel's mansion. Not

those of the bevy of buxom lassies, but the ample charms of a genuine Dutch country tea table. Such heaped-up platters of cakes of various kinds, known only to experienced Dutch housewives! There was the doughty doughnut, the crisp and crumbling cruller; sweet cakes and short cakes, ginger cakes and honey cakes, and the whole family of cakes. And then there were apple pies and peach pies and pumpkin pies; besides slices of ham and smoked beef; and, moreover, delectable dishes of preserved plums and peaches and pears and quinces; not to mention the broiled shad and roasted chickens; together with bowls of milk and cream, all mingled higgledy-piggledy, with the motherly teapot sending up its clouds of vapor from the midst. Ichabod Crane did ample justice to every dainty.

He was a kind and thankful creature whose spirits rose with eating as some men's do with drink. He could not help, too, rolling his large eyes round him as he ate, and chuckling with the possibility that he might one day be lord of all this scene of



almost unimaginable luxury and splendor. Then, he thought, how soon he'd turn his back upon the old schoolhouse and snap his fingers in the face of Hans Van Ripper.

Old Baltus Van Tassel moved about among his guests with a face dilated with contentment and good humor, round and jolly as the harvest moon.

And now the sound of the music from the common room, or hall, summoned to the dance. Ichabod prided himself upon his dancing as much as upon his vocal powers. Not a limb, not a fiber about him was idle, and to have seen his loosely hung frame in full motion and clattering about the room, you would have thought St. Vitus himself was figuring before you in person. How could the flogger of urchins be otherwise than animated and joyous? The lady of his heart was his partner in the dance, and smiling graciously, while Brom Bones, sorely smitten with love and jealousy, sat brooding by himself in one corner.

When the dance was at an end, Ichabod was attracted to a knot of Sleepy Hollow folk, who, with old Van Tassel, sat smoking at one end of the piazza, gossiping over former times and drawing out long tales of neighborhood ghosts and apparitions. Many dismal tales were told about funeral trains, and mourning cries and wailings heard about the great tree where the unfortunate Major André was taken, and which stood in the neighborhood. Some mention was made also of the woman in white who haunted the dark glen at Raven Rock and was often heard to shriek on winter nights before a storm, having perished there in the snow. The chief part of the stories, however, turned upon the favorite specter of Sleepy Hollow, the headless horseman, who had been heard several times of late patrolling

the country, and who, it was said, tethered his horse nightly among the graves in the churchyard.

The sequestered situation of this church seems to have made it a favorite haunt of troubled spirits. It stands on a knoll, surrounded by locust trees and lofty elms, from among which its decent whitewashed walls shine modestly forth. A gentle slope descends from it to a silver sheet of water, bordered by high trees, between which peeps may be caught at the blue hills of the Hudson. On one side of the church extends a wide woody dell, along which raves a large brook among broken rocks and trunks of fallen trees. Over a deep black part of the stream, not far from the church, was formerly thrown a wooden bridge; the road that led to it, and the bridge itself, were thickly shaded by overhanging trees, which cast a gloom about it even in the daytime, but occasioned a fearful darkness at night.

Brom Bones, who had joined the group, made light of the galloping headless horseman. He affirmed that, on returning one night from the neighboring village of Sing Sing, he had been overtaken by this midnight trooper; that he had offered to race with him for a bowl of punch, and should have won it, too, for Daredevil beat the goblin horse all hollow, but just as they came to the church bridge the specter bolted and vanished in a flash of fire.

All these tales, told in a drowsy undertone, sank deep in the mind of Ichabod.

The revel now gradually broke up. The old farmers gathered together their families in their wagons. Some of the damsels mounted on pillions behind their favorite swains, and their light-hearted laughter echoed along the silent woodlands, sounding fainter and



fainter until it gradually died away—and the late scene of noise and frolic was all silent and deserted. Ichabod only lingered behind, according to the custom of country lovers, to have a tête-à-tête with the heir-ess, fully convinced that he was now on the high road to success. What passed at this interview I will not pretend to say, for in fact I do not know. Something, however, I fear must have gone wrong, for he certainly sallied forth, after no very great interval, with an air quite desolate. Without looking to the right or left he went straight to the stable and with several hearty cuffs and kicks roused his steed most uncourteously from the comfortable quarters in which he was soundly sleeping.

It was the very witching time of night that Ichabod, heavy-hearted and crestfallen, pursued his travel homeward, along the sides of the lofty hills which rise above Tarrytown.

Far below him, the Tappan Zee spread its dusky waste of waters, with here and there the tall mast of a sloop riding quietly at anchor. In the dead hush of midnight he could even hear the barking of the watchdog from the opposite shore of the Hudson. Now and then, too, the long-drawn crowing of a cock, accidentally awakened, would sound far, far off, from some farmhouse away among the hills. No signs of life occurred near him but occasionally the melancholy chirp of a cricket or perhaps the guttural twang of a bullfrog from a neighboring marsh, as if sleeping uncomfortably and turning suddenly in its bed.

All the stories of ghosts and goblins that he had heard at Van Tassel's now came crowding upon his recollection. The night grew darker and darker; the stars seemed to sink deeper in the sky, and driving clouds occasionally hid them from his sight. He had never felt so lonely and dismal. He was, moreover, approaching the very place where many of the scenes of the ghost stories had been laid. In the center of the road stood an enormous tulip tree, which towered like a giant above all the other trees of the neighborhood. Its limbs were gnarled and fantastic, large enough to form trunks for ordinary trees, twisting down almost to the earth and rising again into the air. It was connected with the tragical story of the unfortunate André, who had been taken prisoner near by, and it was universally known by the name of Major André's tree.

As Ichabod approached this fearful tree, he began to whistle. He thought his whistle was answered—it was but a blast sweeping sharply through the dry branches. As he approached a little nearer, he thought he saw something white hanging in the midst

of the tree. He paused and ceased whistling; but on looking more narrowly he perceived that it was a place where the tree had been scathed by lightning and the white wood laid bare. Suddenly he heard a groan—his teeth chattered and his knees smote against the saddle; it was but the rubbing of one huge bough upon another as they were swayed about by the breeze. He passed the tree in safety, but new perils lay before him.

About two hundred yards from the tree a small brook crossed the road and ran into a marshy and thickly wooded glen. A few rough logs, laid side by side, served for a bridge over this stream. On that side of the road where the brook entered the wood, a group of oaks and chestnuts, matted thick with wild grapevines, threw a cavernous gloom over it. To pass this bridge was the severest trial. It was at this identical spot that the unfortunate André was captured, and under the covert of those chestnuts and vines were concealed the sturdy yeomen who surprised him. This had ever since been considered a haunted stream, and fearful were the feelings of the schoolboy who had to pass it alone after dark.

As he approached the stream, his heart began to thump. He summoned up, however, all his resolution, gave his horse a half score of kicks in the ribs, and attempted to dash briskly across the bridge. But instead of starting forward, the perverse old animal made a lateral movement and ran broadside against the fence. Ichabod, whose fears increased with delay, jerked the reins and kicked lustily with his foot. It was all in vain; his steed started, it is true, but it was only to plunge to the opposite side of the road into a thicket of brambles and alder bushes.

The schoolmaster now bestowed both whip and heel upon the ribs of old Gunpowder, who dashed forward, snuffing and snorting, but came to a stand just by the bridge with a suddenness that nearly sent his rider sprawling over his head. Just at this moment a plashy tramp by the side of the bridge caught the sensitive ear of Ichabod Crane. In the dark shadow of the grove, on the margin of the brook, he beheld something huge, misshapen, black, and towering. It stirred not, but seemed gathered up in the gloom, like some gigantic monster ready to spring upon the traveler.

The hair of the pedagogue rose upon his head with terror. What was to be done? To turn and fly was now too late; and besides, what chance was there of escaping ghost or goblin, if such it was, which could ride upon the wings of the wind? Summoning up, therefore, a show of courage, he demanded in stammering accents, "Who are you?" He received no reply. He repeated his demand in a still more agitated voice. Still there was no answer. Once more he cudgeled the sides of Gunpowder and broke forth into a psalm tune. Just then the shadowy object of alarm put itself in motion and, with a scramble and a bound, stood at once in the middle of the road. Though the night was dark and dismal, yet the form of the unknown might now in some degree be ascertained. He appeared to be a horseman of large dimensions, and mounted on a black horse of powerful frame. He kept aloof on one side of the road, jogging along on the blind side of old Gunpowder, who had now got over his fright.

Ichabod, who had no relish for this strange midnight companion, bethought himself of the adventure

of Brom Bones with the Galloping Hessian, and now quickened his steed in hopes of leaving him behind. The stranger, however, quickened his horse to an equal pace. Ichabod pulled up and fell into a walk, thinking to lag behind—the other did the same. His heart began to sink within him; he endeavored to resume his psalm tune, but his parched tongue clove to the roof of his mouth, and he could not utter a single stave. There was something in the moody and dogged silence of this companion that was mysterious and appalling. It was soon fearfully accounted for. On mounting a rising ground, which brought the figure of his fellow-traveler in relief against the sky,

gigantic in height, and muffled in a long cloak, Ichabod was horror-struck on perceiving he was headless!

But his horror was still more increased on observing that the head, which should have rested on his shoulders, was carried before him on the pommel of the saddle. His terror rose to desperation; he rained a shower of kicks and blows upon Gunpowder, hoping by a sudden movement to give his companion the slip—but the specter started full jump with him.

Away then they dashed, through thick and thin; stones flying and sparks flashing at every bound. Ichabod's flimsy garments fluttered in the air as he stretched his long, lank body away over the horse's head in the eagerness of his flight.

They had now reached the road which turns off to Sleepy Hollow; but Gunpowder, who seemed possessed with a demon, instead of keeping up it, made an opposite turn and plunged headlong downhill to the left.

This road leads through a sandy hollow, shaded by trees for about a quarter of a mile, where it crosses the bridge famous in goblin history, and just beyond swells the green knoll on which stands the whitewashed church.

As yet the panic of the steed had given his unskillful rider an apparent advantage in the chase; but just as he had got halfway through the hollow, the girths of the saddle gave way, and he felt it slipping from under him. He seized it by the pommel and endeavored to hold it firm. But in vain; he had just time to save himself by clasping old Gunpowder round the neck when the saddle fell to

the earth and he heard it trampled underfoot by his pursuer.

For a moment the terror of Hans Van Ripper's wrath passed across his mind—for it was his Sunday saddle. But this was no time for petty fears; the goblin was hard on his haunches, and (unskillful rider that he was!) he had much ado to maintain his seat, sometimes slipping on one side, sometimes on another, and sometimes jolted on the high ridge of his horse's backbone with a violence that he verily feared would cleave him asunder.

An opening in the trees now cheered him with the hopes that the church bridge was at hand. The wavering reflection of a silver star in the bosom of the brook told him that he was not mistaken. He saw the whitewashed walls of the church dimly glaring under the trees beyond. He recollected the place where Brom Bones' ghostly competitor had disappeared.

"If I can but reach that bridge," thought Ichabod, "I am safe."

Just then he heard the black steed panting and blowing close behind him; he even fancied that he felt his hot breath. Another convulsive kick in the ribs, and old Gunpowder sprang upon the bridge. He thundered over the resounding planks; he gained the opposite side.

And now Ichabod cast a look behind to see if his pursuer should vanish, according to rule, in a flash of fire and brimstone. Just then he saw the goblin rising in his stirrups and in the very act of hurling the head at him.

Ichabod endeavored to dodge the horrible missile, but too late. It encountered his cranium with a



tremendous crash—he was tumbled headlong into the dust; and Gunpowder, the black steed, and the goblin rider passed by like a whirlwind.

The next morning the old horse was found without his saddle and with the bridle under his feet, soberly cropping the grass at his master's gate. Ichabod did not make his appearance at breakfast. Dinner hour came, but no Ichabod. The boys assembled at the schoolhouse and strolled idly about the banks of the brook, but no schoolmaster. Hans Van Ripper now began to feel some uneasiness about the fate of poor Ichabod and his saddle. An inquiry was set on foot, and after diligent investigation they came upon his traces. In one part of the road leading to the

church was found the saddle trampled in the dirt. The tracks of horses' hoofs deeply dented in the road, and evidently at furious speed, were traced to the bridge, beyond which, on the bank of a broad part of the brook where the water ran deep and black, was found the hat of the unfortunate Ichabod, and close beside it a shattered pumpkin.

The brook was searched, but the body of the schoolmaster was not to be discovered. Hans Van Ripper, as executor of his estate, examined the bundle which contained all his worldly effects. They consisted of two shirts and a half; two stocks for the neck; a pair or two of worsted stockings; an old pair of corduroy smallclothes; a rusty razor; a book of psalm tunes; and a broken pitch pipe. As to the books and furniture of the schoolhouse, they belonged to the community, excepting a New England almanac and a book of dreams and fortunetelling, in which last was a sheet of foolscap much scribbled and blotted in several fruitless attempts to make a copy of verses in honor of the heiress of Van Tassel. These books and the poetic scrawl were forthwith consigned to the flames by Hans Van Ripper; who from that time forward determined to send his children no more to school, observing that he never knew any good to come of this same reading and writing.

Ichabod's disappearance caused much speculation at the church on the following Sunday. Knots of gazers and gossips were collected in the churchyard, at the bridge, and at the spot where the hat and pumpkin had been found. The stories of Bones and of others were called to mind; and when they had diligently considered them all, they shook their heads and came to the conclusion that Ichabod had been carried off by

the Galloping Hessian. As he was a bachelor, and in nobody's debt, nobody troubled his head any more about him.

It is true that an old farmer who had been down to New York on a visit several years after, and from whom this account of the ghostly adventure was received, brought home the intelligence that Ichabod Crane was still alive; that he had left the neighborhood, partly through fear of the goblin and Hans Van Ripper, and partly in mortification at having been suddenly dismissed by the heiress; that he had changed his quarters to a distant part of the country; had kept school and studied law at the same time, had been admitted to the bar, turned politician, electioneered, written for the newspapers, and finally had been made a justice of the ten-pound court. Brom Bones, too, who shortly after his rival's disappearance conducted the blooming Katrina in triumph to the altar, was observed to look exceedingly knowing whenever the story of Ichabod was related, and always burst into a hearty laugh at the mention of the pumpkin; which led some to suspect that he knew more about the matter than he chose to tell.

The old country wives, however, who are the best judges of those matters, maintain to this day that Ichabod was spirited away by supernatural means; and it is a favorite story often told about the neighborhood round the winter-evening fire. The schoolhouse, being deserted, soon fell to decay and was reported to be haunted by the ghost of the unfortunate pedagogue; and the plowboy, loitering homeward of a still summer evening, has often fancied his voice at a distance, chanting a melancholy psalm tune among the tranquil solitudes of Sleepy Hollow.

HELP YOURSELF!

BEFORE reading a story, you often wish to know when and where it took place, how it came to be written, or which characters are real persons who actually lived. Help yourself by finding the answers to these and other questions in the notes that follow. Help yourself by looking up troublesome phrases in the explanations listed under each story title on the following pages. And do "help yourself" to the definitions of hard words in the glossary on pages 524-539, to the list of proper names on pages 540-542, and to the list of fine books to read on pages 520-523.

Living in America Today

RODNEY'S ROCKET by Ralph Goldsmith (pages 8-18)

The title of this story tells you that it will be about an invention which has baffled scientists for years. You can guess from the way the first paragraph is written whether this is a serious story of one inventor's struggles or whether it is a humorous story to be read just for fun.

◀ **Page 8**—*Darius immortalized himself.* The experiments of Darius (də rī'əs) have been made famous by the poem "Darius Green and His Flying Machine" by John Townsend Trowbridge.

—*came to an untimely end.* The wax wings melted under the sun's heat, and Icarus (ik'ə rəs) fell to his death.

—*elements of aeronautics,* the necessary rules by which the science of flying is carried out.

—*Socrates High School.* Socrates (sok' re tēz) lived in Athens, Greece, from 469 to 399 B.C. Many people of that time thought him downright crazy, but later on he was recognized as one of the wisest men of all time.

◀ **Page 11**—*This apparatus was dwarfed.* The apparatus was made to seem small by comparison, as a dwarf appears small when compared to a man of normal size.

RODNEY'S ROCKET (continued)

◀ Page 11—*brain child*, something that is thought up or made by a person and then treated as fondly as if it were a child.

◀ Page 13—*pressure gauge on a steam boiler*, a round, clock-like instrument that shows the amount of force created by the steam.

—*graduated by tens*, marked out for measuring, each mark showing ten pounds of pressure.

◀ Page 14—*the compound I'm using for power*, the chemical mixture I'm using to make my rocket move.

—*Did Orville Wright hesitate at Kitty Hawk?* Orville Wright and his brother Wilbur made the first successful airplane flight at Kitty Hawk, North Carolina, on December 17, 1903.

—*Did Fulton build a steamboat . . . ?* Robert Fulton proved that his steamboat would work when he made a successful trip up the Hudson River in 1807. Rodney is pointing out that although these inventors were considered foolish, too, they kept on and finally succeeded.

◀ Page 15—*Heesa*, he is.

—*tree-four*, three or four.

—*geefa*, give.

—*dry ice*, a very cold, white solid formed when carbon-dioxide gas is greatly compressed and then cooled. It is called *dry* because it changes from a solid back to a gas without becoming a liquid.

◀ Page 16—*you burned your hand*. The sensation from the extreme cold of dry ice feels very much like that from extreme heat.

BEN BARTLETT'S BANNER by Dana Burnet (pages 20-34)

The title is very much like that of the story about Rodney Redman, but the way the first few paragraphs are written suggests that this story will be a more serious one—although just as interesting. Perhaps you may even find it more interesting, especially if you like boat races and boys with courage.

BEN BARTLETT'S BANNER (continued)

◀ **Page 21**—*a kind of sea sled, a motorboat shaped somewhat like a sled.*

◀ **Page 22**—*bottle of pop to celebrate the ceremony.* Before a new ship is launched for the first time, it is the custom to name it and break a bottle of champagne on its prow.

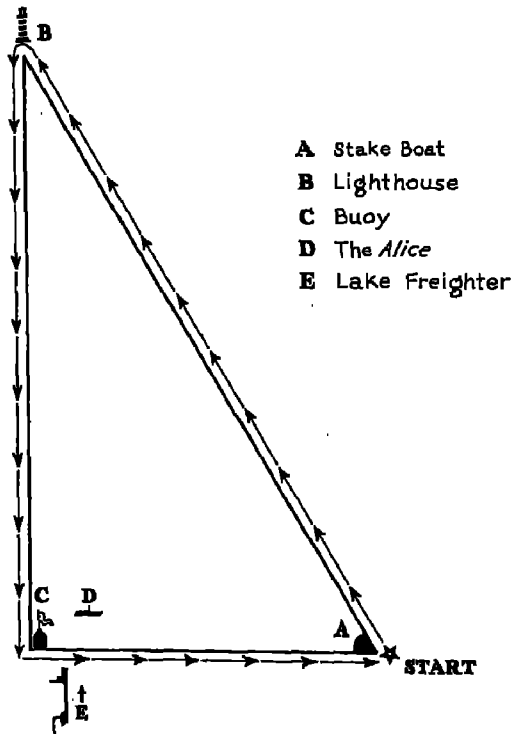
◀ **Page 27**—*a stake boat, a boat anchored to stay in one spot to mark the starting or finishing point.* See diagram of the course below.

—*mebbe, maybe.* William is a cautious soul, and tacks *maybe* or *I guess* on to almost every statement.

◀ **Page 28**—*played brassily, with the loud sound caused by trumpets, horns, and other brass instruments.*

◀ **Page 30**—*short the ignition, prevent the spark from exploding the gasoline, thus stopping the engine.*

◀ **Page 33**—*directly under the menacing black stem of the oncoming lake freighter.* See the diagram.



SHINY PANTS by Borden Chase (pages 36-52)

◀ **Page 36**—*eighty and found*, eighty dollars a month and board and room.

◀ **Page 37**—*quarter horse*, a horse originally developed to run the quarter-mile race, but now used chiefly in the West, where its great speed for short distances and its ability to turn quickly make the quarter horse valuable for herding cattle.

—*frogs in his hoofs*, horny pads in the middle of the bottom of each hoof.

—*a Thoroughbred is English*. There is a difference between *purebred* and *Thoroughbred*. The first term may refer to any horse or animal whose parents and ancestors are all of one breed or type. The Thoroughbred is a particular breed of running horses which all have as ancestors certain fine horses which were brought to the royal stables of England during the period from 1660 to 1724. From the descendants of this original group were developed horses with certain traits, especially speed. Since the races which these horses were trained for were usually short, strength was not a needed characteristic. The word "thoroughbred" (not spelled with a capital T) has come to mean any animal or person who comes from a fine family or who shows the good manners and behavior for which the English Thoroughbred horse is famous.

—*Brahma steer*, a type of cattle developed from the Brahma cattle of India.

—*rope-wise, sensible*. A rope-wise horse can tell from the feel of the cowboy's rope whether he should stand still, pull back to tighten the rope (one end of which is fastened to the saddle and the other end used to lasso the steer), or step forward to loosen the rope. A *sensible* horse is one that is not skittish.

—*buck-jumped the stall kinks*, jumped into the air with back curved and came down with front legs stiff—a favorite trick with a horse that wants to throw the rider. Here Copper is bucking to exercise his muscles, which have grown stiff and knotty while he was standing in his stall.

SHINY PANTS (continued)

◀ Page 38—*work him here in the corral*, train him to obey the many orders a cowpony needs to know and to do it in an enclosure where he can't run away.

—*reined him right and left and put him through a figure eight*, guided him with the touch of the rein on first one side of his neck and then the other, thus telling him when to turn to make the form of a figure 8. The ability to do this figure is very helpful in the work of the roundup and is usually required of range horses entered in a contest.

◀ Page 39—*work him in the shows*, enter him in the contests at the fairs, rodeos, or horse shows.

—*sit Copper*, sit upon Copper, perhaps riding him around the corral without going outside it.

—*looking over the spread*, looking over the ranch.

—*palomino yearling*. A palomino is a light-colored horse with a light mane and tail. A yearling is supposedly one year old, although all horses are considered yearlings on the first of January following their birth, regardless of their actual birthday.

—*put the leather on*, put on the leather saddle.

◀ Page 40—*knew his hands were hard*, knew that he would be firm rather than gentle in handling a horse.

—*grab the apple*, take hold of the saddle horn. No good rider is supposed to hold on to the horn while riding.

—*he sunfished*, he brought his shoulders down nearly to the ground, then raised them in an effort to throw his rider.

—*hands down*, without effort; easily.

◀ Page 41—*Bert would have trailed the reins*. Horses used by cowboys in their work on the range are trained to stand as though tied if the reins are trailed on the ground.

—*Quarter Circle V punchers*, the cowpunchers (cowboys) of the ranch using a quarter-circle above a V (V̂) as their brand to mark their cattle.

SHINY PANTS (continued)

◀ Page 42—*we all high-tailed*, rode fast without looking behind. The expression comes from the fact that scared horses carry their tails high when running away.

◀ Page 43—*had heavy hands*, pulled heavily on the reins instead of guiding with a gentle touch.

◀ Page 45—*take a blue in the stock-horse class*, win a first prize (blue ribbon) in the contest for horses trained to handle stock (cattle) in the roundup.

◀ Page 46—*broke on the turns*, broke his gait, changing from a lope to a walk or trot. In order to make a perfect score in a contest, the horse must keep the same gait.

◀ Page 48—*dusted around*, hurried, since horses, cars, etc., usually raise dust when in a hurry.

—*Copper was high*. Copper was in high spirits.

◀ Page 50—*Time to show*, time to put Copper through the different movements required in the contest.

—*ran full length for the called stop*. One of the things a cow horse must do is stop quickly even when running at full speed, and so in a stock-horse contest the running horse has to stop at a signal from the judge.

◀ Page 51—*wrote a screaming eleven*, dragged his feet in stopping so that the parallel hoofprints looked like a figure 11.

◀ Page 52—*the sack of sand*, to represent a calf roped for branding. Now Copper must show how calm and steady he will be while his rider is working.

—*chip off the old block*, just like her father.

—*square back*, pull back, in order to pull the rope tight.

—*walk to the sack, and put one foot on it*, as if branding or examining a calf in a roundup.

Builders of America

NEWS FROM THE NEW WORLD by E. R. Gaggin (pages 54-67)

To settle in a brand new world after sailing for many weeks across the sea—young Pilgrim Matt Over found this an exciting prospect, and with keen relish he planned to write a whole series of newsletters from that New World back to his mother in the Old World at Leiden, Holland, where the Over family had settled with a band of Pilgrims from Scrooby, in England. Mrs. Over would come to America later to join Matt and his father. In the meanwhile she would welcome the news contained in Matt's letters giving the details of the momentous events that were sure to follow his first glimpse of land from the tiny sailing ship, the *Mayflower*, on November 11, 1620.

In an old history of New England the list of Pilgrims who came over in the *Mayflower* is given. Matt Over's name is not there, for the author of "News from the New World" created him in imagination. But his letters make him seem very real, and through them we meet a number of the actual *Mayflower* passengers and learn what valiant, heroic efforts the little band of Pilgrims had to make in overcoming the difficulties of establishing a settlement in the new land of America.

◀ Page 54—*St. Nicholas' Day*. St. Nicholas is the Dutch Santa Claus. His day is celebrated on December 6 instead of on December 25.

—*Miles Standish*, the famous soldier who became the military commander of New Plymouth Colony. He was probably not a Pilgrim himself, but went with them as military adviser. An interesting (but imaginary) account of his life in New Plymouth is told in Henry Wadsworth Longfellow's famous poem *The Courtship of Miles Standish*.

◀ Page 55—*Giles Kerry*, an imaginary character.

—*Francis Billington* was the name of a real boy who came over on the *Mayflower*, although the account of the gunpowder explosion is not historically true. His

NEWS FROM THE NEW WORLD (continued)

companion in mischief, Timothy Belt, is an imaginary character.

◀ Page 56—*William Brewster*, the religious leader of the Pilgrims.

—*Goodman John Carver*, a well-educated man and a leading Pilgrim. In those days such a person was given the respectful title of "Goodman."

◀ Page 58—*Nabby Wain*, an imaginary girl character and a friend of Matt Over's.

—*John Alden*, a real person. He was a cooper—one who makes and repairs barrels, casks, etc. He is one of the leading characters in *The Courtship of Miles Standish*.

◀ Page 60—*no charter from the King!* The British king, James I, had granted charters to many wealthy Englishmen, giving them rights over large tracts of land in America. The Pilgrims were pleased to have purchased their charter from the London Company; this gave them a feeling of freedom from the dictation of King James, who strongly disapproved of their separation from the Church of England.

—*four cornerstones*, the four ideas which would serve as a basis for the life of the colony and which would hold the colony together as cornerstones support a building.

◀ Page 61—*we have no rushes*. It was the custom to cover the floors of houses with rushes (plants with long leaves, also used for weaving baskets, chair seats, etc.).

—*the wilderness bared its fangs*, the severe storms were signs of a hard winter, just as snarling teeth (fangs) are the threats of an angry beast.

◀ Page 64—*the noble chief, Samoset*, the first Indian chief to visit the Pilgrims. He was very friendly and later saved the colonists from being massacred by marauding redmen.

◀ Page 67—*for your study when you arrive*. Matt's mother was very much interested in plants and herbs.

—*ring of elephants*, a carved ivory mantel decoration, much treasured by the Overs, which you can read about in *Down Ryton Water*, the book from which this story is taken.

A COAT FOR A SOLDIER by Florence Maule Updegraff
(pages 68-81)

The setting of this story is a colonial farm somewhere near New Plymouth, where the Pilgrims had established the first English colony in New England. But considerable time has passed since the *Mayflower* anchored off the coast in 1620; it is now 1775, and many changes have taken place in New England. For one thing, there is no longer a Plymouth Colony; it has been a part of the larger Massachusetts Colony since 1691—eleven years after the British King had sent Sir Edmund Andros to be governor of Massachusetts. Every colony along the seacoast is now ruled by a governor appointed by the King.

For many years now there have been serious conflicts between the colonists and their royal governors. The people of Massachusetts remember well the Boston Massacre on March 5, 1770, and the Boston Tea Party on December 16, 1773. And just a few months ago, on April 19, 1775, the first shots of the American Revolution were fired on Lexington Common. Thus the American colonists have been forced to fight for the rights that they had inherited from their English forefathers. But as this story opens, one young American is dreaming of something far removed from the stern duties of war.

◀ **Page 69**—*school copybooks*, books with specimens of handwriting to be copied as practice in penmanship.

—*card-miller*, one who cleans and combs wool.

—*the invalids*, Uncle Tom and Father. Uncle Tom was slowly recovering from a severe bayonet wound. Father was still limping from a shot in the knee.

◀ **Page 70**—*on the Common*, on the field owned by the town.

—*the commons fired*, the common soldiers fired.

◀ **Page 71**—*a blue canton in which, etc.* The canton is a rectangular section of a flag; it is placed as described in the first line of this page.

—*the St. George cross . . . the Scotch St. Andrew*, the English Jack, or Union Flag, shows the cross of St.

A COAT FOR A SOLDIER (continued)

George (the patron saint of England) and the cross of St. Andrew (the patron saint of Scotland). Scotland and England were united in 1603.

◀ Page 72—*the second bell rang*. A first bell summoned the people to worship; just before services were started, a second bell called them to enter the church.

◀ Page 74—*During the nooning*. Sunday services lasted from early morning until midafternoon, with an intermission at noon for rest and food, called the nooning, for which special quarters were provided.

◀ Page 78—*shifts and night rails*, undershirts and night gowns.

THE OREGON TRAIL by Arthur Guiterman (pages 82-84)

Daniel Boone wanted "elbow room"; Davy Crockett and Kit Carson wanted to hunt bears and buffalo; Lewis and Clark wanted to explore; Marcus Whitman wanted to carry religion to the Indians. And they all wanted to go West. They were famous leaders, trail blazers. But after them came men and women—hundreds of them, thousands of them, whose names are forgotten—who wanted homes, richer lands, better opportunities for earning a living. Across vast prairies, where danger and death lurked, they traveled in covered wagons called "prairie ships." Beyond the prairies lay great mountains, and then at last—Oregon.

It took courage to follow the trail to Oregon. In this poem Arthur Guiterman has caught the spirit of that pioneer courage. The long, slow-reading lines with their hard accents let you hear the lumbering, rumbling rhythm of the covered wagons themselves.

FLYING CLOUD by Charles G. Muller (pages 88-99)

Gold! That magic word was on every American's lips in 1849, for news of the discovery of the yellow metal in California had spread quickly over the fast-growing United

FLYING CLOUD (continued)

States. There was a mad scramble to reach the coast; covered wagons by the score hurried from every direction bearing a horde of eager treasure-seekers. Practically everyone was hunting gold. Stores and offices had to close for want of workers. Consequently there was a tremendous demand for food and supplies to be sent from the East. But how could they be got there in time? That was a problem for many a New Yorker—among them Ezra Thompkins and his son Jabe.

◀ **Page 87**—*The clipper N. B. Palmer*, a giant clipper ship. The clippers were rightly called "ocean greyhounds"; they were the speediest ships afloat in those days.

—*Cape Horn*, at the southern tip of South America. The ship would turn west here and then head northwest for San Francisco.

—*the Astor House*, a famous hotel.

◀ **Page 88**—*Donald McKay*, the most famous designer and builder of clipper ships. You can read about him in *Donald McKay, Designer of Ships* by Clara Ingram Judson.

◀ **Page 91**—*the Golden Gate*, the entrance to San Francisco Bay.

—*The East River . . . Battery Park*. The East River connects Long Island Sound with New York Bay. Most ships sailing into the Atlantic used to anchor off Battery Park at the south end of Manhattan Island, New York City.

—*the chanteyman*. Work songs called chanteys (shan'tiz) were sung by sailors while they were weighing anchor, hoisting sails, or doing any other task that required a group to work together. The leader, or chanteyman, would sing a line or two; then all the sailors would join in, timing their work to the rhythm of the song.

◀ **Page 92**—*'Vast heaving! Avast (stop) pulling!* The anchor has been loosened enough.

—*Anchor's apeak*, anchor is just about to be broken loose.

FLYING CLOUD (continued)

◀ Page 92—*Sheet home the topsails!* Haul them well out to the end of the yardarm. The sheets are the ropes used to control the sails.

—*the clipper paid off*, it swung off from the wind.

◀ Page 93—*The ensign dipped.* The flag was lowered and raised again as a farewell salute.

◀ Page 94—*Sandy Hook*, a cape on the eastern New Jersey coast near New York City.

◀ Page 95—*making knots*, making speed. A knot is a unit of speed of one nautical mile (6080.27 ft.) an hour.

—*the log had been hove*, the speed and distance made had been figured and recorded in the logbook.

◀ Page 99—*Farallon Islands*, islands just west of San Francisco Bay located north and east of the ship.

I HEAR AMERICA SINGING by Walt Whitman (page 100)

When Walt Whitman wrote this poem about American carpenters, shoemakers, and mechanics singing as they worked, he was writing about something that moved him deeply. He believed in the dignity and importance of the workingman, and he put his beliefs into poetry—even though almost everyone else in those days thought that writing poetry about workers was shocking. People were also shocked because Whitman's poems didn't rhyme, but Whitman believed that the new way of living in America demanded a new way of writing to fit it. He roamed about the country—listening to the way people talked, watching how they lived. He worked as a schoolteacher, a carpenter, a newspaperman. He served as a volunteer nurse for wounded soldiers when war broke out between the North and the South. And he kept on listening, watching, studying people, and writing poetry. He wrote in the rhythmic, long-swinging lines that to him revealed the spirit of the men and women who, just by doing their work from day to day, were building America.

ENGINE 999 by Margaret Norris (pages 101-108)

As the United States continued to expand, the problem of getting back and forth across the vast country became more and more acute. Covered wagons, clipper ships, and the short railroads were not enough. In 1869 the first coast-to-coast railroad was completed. During the next twenty years many other railway systems were established, running north and south, east and west. But the trains were slow. Speed became the goal of all railroad men. "Engine 999" tells the story of how speed—incredible speed—was built into a powerful new engine; it tells at the same time of the great engineer who was at the throttle when "999" made its record-breaking trial run.

◀ **Page 101**—*record . . . has seldom been beaten.* The fastest official recorded train run made so far is 127.1 miles per hour, set by the Pennsylvania Special (now called the Broadway Limited) on June 12, 1905, on a three-mile stretch near Elida, Ohio. The Special was on its first regular 18-hour run from New York to Chicago and was trying to make up time.

◀ **Page 103**—*before the introduction of the air brake.* The air brake was invented by George Westinghouse in 1868 after he had been in a train wreck caused by slow-working hand brakes. It used compressed air instead of handpower and all cars could be controlled by the engineer.

◀ **Page 104**—*link-and-pin system.* Trainmen had to drop a coupling pin into the hook, or snatch it out, just as one car was backed into another. After 1887 the automatic coupler rapidly replaced the dangerous hand method.

—*Commodore Vanderbilt, Cornelius Vanderbilt, who had been dubbed "Commodore" when as a young man he gained control of several lines operating ferries across Manhattan Bay. After the Civil War he bought up several railway lines and became president of the New York Central Railway System.*

◀ **Page 105**—*the World's Fair, the World's Columbian Exposition, held in Chicago.*

ENGINE 999 (continued)

◀ Page 106—*buffing or emery process*, method of polishing. Buffing is done by a wheel covered with leather; the polishing is speeded by the use of dust ground from a mineral called emery.

—*spring hanger over her drivers*. Hangers are the metal loops or hooks that hold the springs over the large outside wheels which drive the train forward.

◀ Page 107—*take the bridle off*, let her go as fast as possible, as a horse gallops off when freed from restraint of bridle or reins.

THE MAKERS OF SPEED by Carl Sandburg (page 109)

If Carl Sandburg had lived in Walt Whitman's time, they would have been friends. Like Whitman, Sandburg writes about common people, about work and workers, and he also uses unrhymed verse. But his ideas are different because the people of his time are different. Whitman heard the songs of workers who made things by hand. Sandburg hears the metallic whir and ring of machinery and the production line.

ROAD TO ALASKA by Douglas Coe (pages 110-118)

From the Pilgrims to Carl Sandburg's "makers of speed" the workers you have read about in "Builders of America" have labored in all parts of the United States. Now, in "Road to Alaska," a group of American workers tackle a huge task outside the limits of the United States. They enter the friendly neighboring country of Canada to build a road over which might pour vast supplies for the United States Army forces in Alaska and their Canadian, Russian, and Chinese allies of the Second World War.

◀ Page 111—*a Quartermaster Unit*, a group of the Quartermaster Corps, which is responsible for supplying the Army with quarters, food, clothing, fuel, and transportation.

◀ Page 113—*the lead bulldozers*, the giant caterpillar tractors that started the work, with others following behind.

Wonder Workers

POWER DIVE by Howard M. Brier (pages 120-130)

In this story, which is set sometime before the Second World War, you meet Barry Martin, who wants to take on the world's most dangerous job—being a test pilot, who tries out new models of airplanes. Barry has just one fear—that he won't get the job.

◀ **Page 120**—*specification sheet*, a sheet of paper containing the detailed description of the dimensions, materials, etc., to be used in building a plane.

—*to give ground*, to retreat; to stop trying.

—*grease monkey*, airplane mechanic.

◀ **Page 121**—*washed out at Sand Point Field*—*couldn't make Pensacola*. He had failed at the Navy aviation training school at Sand Point and was not admitted to the Naval air station at Pensacola, Florida.

—*You're a natural*, you have the main qualities needed by a flier, even without training.

◀ **Page 124**—*follow the beacons*, use the beacon lights at various cities and airports along the way as guideposts.

◀ **Page 125**—*Ten successive loops*, ten vertical circles made one after another.

—*barrel rolls*. A barrel roll is a stunt in which the plane is completely turned about from end to end.

—*at terminal velocity*, at a rate of speed that is attained by a falling object when the resistance of the air has become equal to the force of gravity.

—*eight-G pull-outs*, coming out of a nose dive from such a height and at such a speed that the force pulling the plane downward would be eight times as powerful as the force of gravity, which naturally pulls falling objects toward the ground.

—*propeller wash*, air swept backward by the movement of the propellers.

◀ **Page 126**—*party of the second part*, a phrase used in wills, contracts, and other legal papers to mean the second person,

POWER DIVE (continued)

or "party," mentioned. The first person mentioned would be the party of the first part (in this case, the Starwing Airplane Company).

◀ Page 127—*falling leaf*, a flight maneuver in which an airplane in a gliding attitude is made to swing and settle from side to side (similar to the motion of a falling leaf) with no apparent change in the direction of heading.

—*kicked the plane over*, started the dive.

◀ Page 129—*crash padding*, soft covering on the edge of the instrument panel to absorb the shock if the pilot is thrown against it in a crash landing.

◀ Page 130—*taxied up on the apron*, moved over the ground and on to the hard surface area right in front of the hangar.

HIGH FLIGHT by John Gillespie Magee, Jr. (page 131)

This joyous carol in praise of flying was written by an aviator who gave his life for his country in the Second World War.

MAKING UNDERSEAS MOVIES by John D. Craig

(pages 132-140)

Next to being a test pilot—the job that Barry Martin won in "Power Dive"—the world's most hazardous job is that of being a deep-sea diver. In this article you follow Captain John D. Craig as he descends far below the pounding waves, and you live with him through one of the many underseas adventures that he has recorded in his book *Danger Is My Business*. When he first began diving in 1931, the diving dress was still practically the same as it had been for more than a hundred years. With another diver, Gene Nohl, Mr. Craig invented in 1937 the Craig-Nohl diving dress that made diving at greater depths possible because it used helium mixed with compressed air for the diver to breathe. Craig has continued experimenting with built-in radio sets and high-powered lights and has many plans for further improvements.

MAKING UNDERSEAS MOVIES (continued)

◀ Page 132—*held my head and my life*. Attached to the helmet was the air line that carried air into his helmet.

—*There was no gravity*. There was no force that would pull falling objects to the bottom of the sea as gravity pulls them to the ground. He had to wear heavy weights in order to keep from rising to the top. The diving dress weighs about 212 pounds.

◀ Page 134—*tripped my camera*, released the catch that set the camera in motion.

◀ Page 136—*the Riffs in North Africa*, a tribe of daring adventurers who frequently rob travelers. Mr. Craig had encountered them on a trip to Africa.

—*with your body full of nitrogen*. Compressed air contains a larger amount of nitrogen than ordinary air, and breathing it for any long period of time makes it difficult to breathe ordinary air again. It also slows up all body actions.

—*sweetest hombre in Christendom*, best fellow in the whole Christian world. *Hombre* (ōm'brā) is Spanish for "man."

—*burning myself up*, using up the supply of normal air that he had in his system when he went down.

◀ Page 138—*through long and frightening years*. Mr. Craig is trying to show us that the nervous strain of waiting for the sharks to go away was equal to the amount of strain an ordinary person might endure in years. He carries out this dramatic exaggeration in the next paragraphs by using such phrases as "every decade" and "at the end of the first century" instead of giving the actual time in minutes.

◀ Page 140—*the dreaded bends*, a sickness suffered by divers who are returned too quickly to normal air after having breathed compressed air under the heavy undersea pressure. The air in the blood acts like charged water in a bottle when the cap is suddenly removed—it bubbles. Modern scientists have invented a decompression room in which a diver can sit after coming out of the water and have the air pressure gradually reduced to normal, thus avoiding the bends.

MAKING UNDERSEAS MOVIES (continued)

◀ Page 140—as an arm or a leg went away from me, as an arm or a leg was eaten away by a shark.

MANUAL SYSTEM by Carl Sandburg (page 141)

We have used the telephone so often that many of us forget the amazingly complicated system of wires and signals that is needed in order to work the modern magic of having us hear a friend's voice when we pick up the receiver. And back of all this magic is the girl at the switchboard. She wears a receiver on her head instead of a witch's peaked cap; there is an electric plug in her hand instead of a fairy's wand. But what she does with these modern inventions is as powerful a magic as any told in a fairy tale.

SEAGOING TRACTOR by William Hazlett Upson (pages 142-157)

Stories about inventions are often exciting, but seldom funny. This one is exciting *and* funny. The fun and the excitement center in Super-salesman Alexander Botts and his Earthworm Tractor—which he says can't be beat. The author, who has been writing Alexander Botts stories for many years (you can find several collections of them), gives his hero ample opportunity to prove his statement.

◀ Page 145—*twelve-foot-blade grader*, a tool for grading (making the road more level and even) with a scraping blade twelve feet long.

◀ Page 147—*grouser box*, box for storing spare grousers—the projecting pieces, cleats, or lugs attached to the surface of the wheels or to the endless belt on which the tractor runs.

◀ Page 151—*Legally speaking . . . I am the captain*. According to the laws established for ships at sea, the captain has complete authority over crew and passengers. Mr. Botts may be stretching a point in making this claim, but he has the right idea.

◀ Page 155—the motor was missing, missing fire. Some of the cylinders of the motor were not working.

DEATH OF A HERO by Richard Armour (page 158)

There must have been a twinkle in Richard Armour's eye when he wrote this poem after reading a headline in a New York paper.

PLASMA: MEDICAL WONDER OF TODAY by Charles H. Ellis, Jr., and Robert E. S. Thompson (pages 159-164)

Many wonderful discoveries of new medical treatments have been developed during recent years, but few are as universally interesting as the story of plasma, since the giving of blood for plasma is one way in which everyone can help save lives both in time of war and peace.

◀ **Page 159**—*U.S.S. Kearny*, United States Steamship, *Kearny*.

◀ **Page 160**—*to spread the gospel*, to tell everyone the truth about the wonders of plasma.

◀ **Page 161**—*sodium citrate*, a chemical in the form of white crystals.

—*ignore the skeptical smiles of his colleagues*, pay no attention to the good-natured doubts of his fellow doctors.

◀ **Page 162**—*temperature was 107.4 degrees*. This is very high. Normal temperature, when taken by a mouth thermometer, is 98.6 degrees.

◀ **Page 164**—*has no bad aftereffects*. In collecting blood during the Second World War the Red Cross made certain that all blood donors were physically fit. This was done in order to protect the donor's health and to assure the Red Cross of receiving healthful blood. Donors range from 18 to 60 years in age, but those between 18 and 21 must have their parents' consent. A contributor must weigh at least 110 pounds and otherwise be in good health.

—*this period of ten weeks*. At various times the Red Cross lengthened the period that must elapse between blood donations from six to eight and then to ten weeks in order to safeguard the health of the donor.

Good Stories of Imagination

THE DOG OF POMPEII by Louis Untermeyer (pages 166-177)

Today the city of Pompeii, Italy, is in ruins. Its empty streets and abandoned buildings are a curiosity for tourists to stare at. But Louis Untermeyer—poet and storyteller—looked at those ruins, and his imagination built again the gay, carefree, bustling city that Pompeii had been—until 79 A.D. when the nearby volcano, Mt. Vesuvius, erupted and buried the city in ashes. When the ashes hardened they formed an outline picture of whatever they covered. One of these pictures-in-ashes was a dog, and seeing it gave Mr. Untermeyer the idea for this story. To the facts recorded by historians, he added some imaginary details, characters, and incidents, and the result is a story that seems as real and vivid as the latest news flash.

◀ Page 166—*the inner gate*. Every ancient Roman city was surrounded by a high wall built for defense. No one could enter the city except through the gates. The inner gate opened into the main part of the city.

◀ Page 167—*cakes, sprinkled with raisins and sugar*. The Romans of that day did not have sugar in the form we know it today. For sweetening they used honey. The "sugar" on the cakes that Tito liked was probably crystals formed from cooked honey.

◀ Page 170—*sacrifices to the altars*. The ancient Romans believed that the affairs of human beings were controlled by the gods. Mortals took great care never to offend these powerful beings, especially Mars, the god of war, and Jupiter (also called Jove), the ruler of gods and men. In return for the gods' protecting care, the people built temples, where the gods were worshiped. Before an altar erected in honor of a god, mortals laid sacrifices—such things as live chickens or goats, cooked food, wine or milk, incense, jewels, and weapons.

—*foreign merchants had corrupted the ground*. The Romans of that time were very suspicious of foreigners, as

DOG OF POMPEII (continued)

they called not only people who came from another country but even those from a neighboring city. The natives thought that if a foreigner walked upon the ground of their city, it became corrupted, or no longer pure and sacred.

◀ Page 170—*bathmaster Rufus*, the owner of one of the many public bath houses, which were like athletic clubs and were very popular in Roman times. They had pools and gymnasiums as well as tub baths.

◀ Page 171—*Caesar's birthday*. The emperors of Rome were called Caesar in honor of the great ruler, Julius Caesar, whom they followed. This Caesar was Vespasian.

◀ Page 172—*the marine gate*, the city gate facing the sea.

◀ Page 177—*Eighteen hundred years passed*. Except for the work done by survivors immediately after the disaster, no serious attempt was made to explore Pompeii till 1748. The site of the city had apparently been forgotten up till that time.

LOCHINVAR by Sir Walter Scott (pages 178-180)

As a boy the famous Scottish author, Sir Walter Scott, loved to visit the country people near his home and listen to their quaint old songs and ballads. "Lochinvar" is quite similar to one of the old Robin Hood ballads; at the same time it has the special qualities of all Scott's poems—dash and vigor and the spirit of bold adventure.

THE TOURNAMENT AT ASHBY by Sir Walter Scott

(pages 181-197)

Besides his ballads and other poems, Sir Walter Scott wrote many stirring historical novels. "The Tournament at Ashby" is taken from one of the best of them, *Ivanhoe*. In each of his historical novels Scott selected some great period of history, introduced many actual people who lived at that time, and then wove into the historical background an imaginative story with fictional characters. The historical part of *Ivanhoe* deals with the struggles of King Richard I (Richard the Lion-Hearted) to prevent his brother

THE TOURNAMENT AT ASHBY (continued)

John from gaining control of the English throne. The main story of the novel, however, is concerned with the imaginative character Ivanhoe, a great knight, whom Scott makes a follower of Richard. Like all of Scott's stories, *Ivanhoe* is filled with fearless men, lovely ladies, plots, mystery, and adventure. All these will be found even in the short selection that is given in your book.

◀ Page 181—*the Norman Conquest*, the conquest of England by the Normans (from Normandy in France) in 1066, under the leadership of William the Conqueror.

—*the conquered Saxons*. The Saxons were the people who had been in control of England before the Norman Conquest.

—*Richard had been absent*. Richard had led a Crusade to Palestine in an attempt to capture the Holy Land from its non-Christian rulers. On his way home he was made prisoner by the Duke of Austria, who was friendly to Prince John, Richard's brother. Of course, John expected to gain power during Richard's absence and in time to become king.

◀ Page 182—*knights challengers*. These knights were all Normans and friends of Prince John. They had issued a general challenge to all other contestants in the tournament.

◀ Page 183—*La Royne de la Beaulté et des Amours* (lā ren də lā bō tā' ā dā zā mūr'). This is old French for "The Queen of Beauty and of Love." In modern French *royne* is spelled *reine* and *beaulté* is spelled *beauté*.

◀ Page 184—*a single champion*. The word *champion* is used here, not in the sense of a winner, but of one who enters a contest against another.

◀ Page 185—*stout Saxon that he was*. Cedric, being a loyal Saxon, considered the Normans as foreign enemies. Hence, in his opinion, a victory for the Normans in the tournament would be a blot on the honor of Saxon England.

◀ Page 186—*King Alfred the Great*, king of the West Saxons in England from 871 to 901 A.D.

THE TOURNAMENT AT ASHEY (continued)

◀ Page 186—the Spanish word *Desdichado*. Pronounced: dez'di chä'dō.

◀ Page 187—*defied to mortal combat*, challenged to fight till one of them was killed.

—*Have you confessed yourself?* Have you confessed your sins to the priest and been forgiven, so that you can face death with a clear conscience?

◀ Page 188—the books of the tournament, the records that were kept of all contestants, together with lists of the victors.

◀ Page 192—*Coeur de Lion* (kêr də lē ōn'), French for Lion-Hearted (Richard I).

—*Prince John turning pale as death*. John, of course, feared Richard's revenge for the evil plots against him.

THE HIGHWAYMAN by Alfred Noyes (pages 198-203)

If you are familiar with any of the old ballads about the outlaw Robin Hood, you will probably think of them when you read this modern ballad about another bold "bad man" of long ago. There is an air of breathless suspense in these lines that stirs our excitement. Does your heart beat faster as you wait with Bess for her highwayman-lover?

THE GOLDEN CUP OF KASIMIR by Eric P. Kelly (pages 204-220)

Ever since Poland first came into being many centuries ago, the people of that country have had to fight for their freedom. At one time the country was overrun by barbaric invaders from the East. Thousands of patriotic Poles died on the battlefields, and even those who were not old enough to be soldiers often had to take part in defending their homes.

Eric P. Kelly takes us back to the Poland of those days. Your knowledge of the recent tragic experiences of Poland will help you understand the feelings of the imaginary characters in this tale of old Poland.

THE GOLDEN CUP OF KASIMIR (continued)

◀ Page 205—*the criers were heard no more.* Town criers used to go about from street to street, ringing a bell to attract crowds to which they read news items and proclamations.

◀ Page 206—*the Tartar horde of Genghis Khan.* Genghis Khan (jen'gis kân'), 1162-1227, was a real person, a cruel North Mongolian ruler who overran northern China, Turkestan, Persia, Russia, and Poland. His army was made up largely of savage fighters from Mongolia and Turkey, called Tartars.

◀ Page 211—*let down the drawbridge.* The castle was surrounded by a wide ditch or moat filled with water and could be entered only over a bridge which could be drawn up or let down. If this drawbridge had been kept up, no one could have entered the castle.

—*sold their lives dearly,* killed a number of Tartars before they were themselves killed.

—*battering rams,* huge logs used to break down a door or wall. The end of the log was repeatedly rammed against the door or wall.

◀ Page 215—*Dai.* Pronounced dī.

◀ Page 217—*the White Eagle.* The white eagle was the symbol of Poland and was used on its flag, coat of arms, etc.



Living in Other Lands

HOSI THE LION by Louise Stinetorf (pages 222-232)

The setting for this story is the South African region of Northern Rhodesia, where the settlers from England, Holland, and other European countries are far outnumbered by the native tribes of Africans. The Dutch Boy Scout Hans is very much interested in learning all he can about the abundant plant life of the region; but he discovers some facts about human beings—including himself—that are even more valuable than knowledge of plants.

◀ **Page 222**—*the Zulu territory*, a section of the region that has been set aside for the use of a powerful native tribe, the Zulus, as pasture lands for their cattle. Most of the Zulus are in Natal, but a few are scattered through other parts of South Africa.

◀ **Page 223**—*widened into Lake Lukona*. Lake Lukona and the Luena River are imaginary, but the Zambesi River is real.

—*species still unclassified*. Scientists classify, or group together, plants according to genus (class); each genus is further divided into species (kinds).

◀ **Page 225**—*a Zulu man's beloved knobkerrie*. The knobkerrie is a club with a knob at the end and is used in hunting.

—*calabash with chunks of mealie mush*. The Zulus use a calabash, or dried gourd, in cooking and serving food. This one had evidently been used in stirring a mush made of corn meal.

—*knee bracelet*. The Zulu women like to adorn themselves with ornaments that pierce their noses and ears or that are worn on their heads, arms, knees, and feet.

AFRICAN DANCE by Langston Hughes (page 233)

Dancing, poetry, and music go together. They all are bright threads that are woven into a pattern against the darker background of rhythm. Langston Hughes has chosen the right rhythm and the right words to weave the pattern for a jungle night.

In July 1941, the people of the North Atlantic island of Iceland silently watched an army of another country enter their homeland. But this was no hostile army; the friendly governments of the United States and Iceland had made arrangements for United States Marines to come in and establish an air base on the mountainous, volcanic island. For more than a year before that time, British soldiers had been permitted to use Iceland as a base for transporting planes and other equipment to England. Now the United States Marines would aid in this undertaking.

At first the people of Iceland were dubious about this venture. For centuries the Icelanders had cherished their liberty. What might be the result now of allowing the armed forces of even a friendly nation like the United States to come into the island? That was the question that many of the 120,000 Icelanders were asking in 1941—and among the doubters are the characters in this story.

◀ **Page 235**—*Farmer Egvynd Olafsson* (eg'vünd ö'läfs sön). Notice that the last name of the girls' father differs from theirs. This follows the old Scandinavian custom of forming the last name of daughters and sons from the father's first name. Thus the daughters of Egvynd Olafsson are called Ragna (räg'nä) and Helga (hel'gä) Egvyndsdóttir (eg'vyns döt'tər), *dóttir* meaning "daughter." Later in the story appears Egvynd's son Olaf; he is called Olaf Egvyndsson (eg'vyns sön), the son of Egvynd.

—*the home farm, Gamalstaddur*. The name Gamalstaddur (gäm'əl städ'dyr) means "the old homestead."

—*Farmers' Coöperative*, an organization in which the farmers band together to market their products, sharing the expense and profits. Acting as a group they usually get better prices than if each farmer sold his crops separately.

◀ **Page 236**—*the homely picture*. We usually think of *homely* as meaning "ugly," but here its meaning is closer to "of the home" or "familiar, everyday."

PLANES FLY EAST (continued)

◀ Page 236—*down to Reykjavik to the Free School preparatory to the University.* Iceland requires all children between 10 and 14 to attend the free elementary schools. After completing these studies satisfactorily, pupils may enter a secondary or preparatory school. Those who pass the final examinations are allowed to enter the only University, at the capital city of Reykjavik (rā'kyä vëk').

◀ Page 238—*Madame Tordis* (tôr'dis). The mother of the girls, as is customary in Iceland, is called by her first name, with the Icelandic word meaning "Mrs." or "Madame" preceding it.

◀ Page 242—*Erik the Red . . . Leif the Lucky.* Erik (er'ik) the Red was a Viking chieftain who colonized Iceland about 970. After exploring Greenland in 980 he returned to Iceland about 984, bringing a number of settlers. His son, Leif (lēf) Ericson, visited Norway and from there set out on explorations that led to the discovery of Vinland. Just where Vinland was is not known, but it was probably on the North American coast somewhere between Newfoundland and Virginia.

◀ Page 245—*in their stilted English.* Many Icelanders speak English, though in a way that makes it sound stilted, or stiffly dignified and formal.

—*sponn, knifr*, etc. These Icelandic words are pronounced: *sponn* (spôn), *knifr* (knä'vr), *ketill* (ket'il), *pottr* (pôt'r), *kaka* (kä'kä), *fiskur* (fis'kyr).

DUNKIRK by Robert Nathan (pages 248-252)

For centuries England has been a great naval power and her people have been lovers of the sea and ships. Even the very center of England is not far from the coast, and since most Englishmen are apt to choose a seacoast town for vacations, even city dwellers have learned how to man a sailboat or handle oars. In the summer of 1940 this "feel" for ships helped save thousands of Englishmen from disaster. The German Army had cornered the British forces near

DUNKIRK (continued)

Dunkirk on the French coast. Unless help arrived quickly every man would be lost. Help did arrive. Shipwise Englishmen swarmed to the rescue, using every sort of craft from rowboat to warship. They crossed the Channel to Dunkirk and brought their soldiers home.

Robert Nathan tells us how an English boy named Will and his sister Bess faced the challenge of Dunkirk. Both had the love of ships and the stubborn courage that had produced England's greatest naval heroes: Sir Francis Drake, who carried the English flag around the world on his good ship the *Golden Hind* in the days of Queen Elizabeth; and Lord Nelson, who, with both an eye and an arm missing, won a great sea victory for England at Trafalgar in 1805.

GOD WAS GOOD TO LUZON by Manuel Buaken

(pages 253-262)

The author of this story was born on Luzon (lū zon'), the main island of the Philippines, where his family had lived for generations. His father fought against Spanish oppression of the Philippines in the years before the United States freed the islands from Spanish rule. His mother is known among her countrymen for her poems written in two of the native languages. Thus young Buaken grew up in a home in which love of country was a strong feeling. Later on, when he was sent to the United States to go to college, Manuel Buaken thought longingly of his old home and wrote stories about his boyhood experiences. This particular story took place when Manuel was twelve. As you read it, you will realize how much Luzon means to him and why he left college to fight with the United States Army for the freedom of the Philippines in the Second World War.

◀ Page 253—*Apong Lacay*, *lilikanyo*, etc. The meaning of these Philippine terms is made clear by the text. They are pronounced as follows: *Apong Lacay* (ä pōng' lä kī); *lilikanyo* (lē'lē kä'nŷō); *pinaksio* (pē nāk'syō); *belis* (bā lēs').

GOD WAS GOOD TO LUZON (continued)

◀ Page 254—*Her Indonesian-type face.* The Indonesian race is made up of several groups of people who live in the Malay Peninsula and the Philippines. The people shown in the illustrations on pages 254, 257, and 260 have Indonesian features.

◀ Page 257—*she could read Sanskrit.* Sanskrit is the ancient literary language of India. The literature of India is well known in the Philippines.

◀ Page 258—*kilawen.* Pronounced: kē'lā wān'.

AMERICA IN MY BLOOD by Leon Z. Surmelian

(pages 263-270)

Leon Z. Surmelian, like the author of "God Was Good to Luzon," was born outside the United States but went there to complete his education. He wanted to become an expert in agriculture and then to settle down on a farm. But even more important, he wished to become a citizen of the United States. Every new experience he gained helped him answer the question that burned in his mind: "What does it mean to be an American?"

◀ Page 263—*Trebizond . . . in old Armenia.* Trebizond, a port city now controlled by Turkey, has at various times been a part of the ancient Greek and Roman Empires, of independent Armenia, and of Russia.

◀ Page 267—*Prunus armeniaca.* Pronounced: prü'nēs är'-mē nī'ē kē.

—*kaskeni.* Pronounced: kās kā'ni.

◀ Page 269—*Indian sun.* Many western Indians worshiped the sun as a god. The fierce heat beating down upon the prairie made the Indians feel that the sun had supernatural power.

◀ Page 270—*papers of citizenship,* legal documents necessary for naturalization (being made a citizen).

—*the song of bread,* an imaginary song of many people expressing thanks for food, as in the Lord's Prayer: "Give us this day our daily bread."

The Outdoor World

FAWN'S FIRST JOURNEY by Maud E. Uschold (page 272)

In this poem we see a mother deer taking her baby for its first journey into the forest. With every sense alert, the doe seeks out signs of danger so that no harm may come to her fawn.

OLD SCAR-BACK by Stephen W. Meader (pages 273-284)

When you match a cautious, crafty old deer against two young hunters determined to track him down, it is hard to guess which side will win. Breck Townsend and his friend Sam McArdle had been on the trail of Old Scar-Back for two days now, without catching sight of the majestic old deer. But the boys would not give up. They knew that their task was not an easy one; but they were determined to get at least one shot at Scar-Back—with a camera, not a gun.

◀ **Page 275**—*hidden yards*, small clearings surrounded by thick undergrowth and trees where deer herd together for feeding and shelter.

—*unless he could get the scent*. Animals need to be facing the wind to get a clear scent, for the wind then carries the smell toward them.

◀ **Page 277**—*every birch twig . . . was stripped of its tender bark*. The deer had eaten it for food.

◀ **Page 278**—*whether the wind holds*. If the wind shifted so that it was blowing away from the boys instead of toward them, Old Scar-Back would scent them and escape.

—*I'll open the shutter; the flash will be up to you*. Breck's job was to take the picture by opening the shutter of the camera; at the same instant Sam would light up the scene by pressing a button of the "flash gun," causing the bulb to light.

◀ **Page 282**—*a darkroom*. If film is exposed to light, it becomes spoiled, and so it is developed in an unlighted room.

OLD SCAR-BACK (continued)

◀ **Page 283**—*put it in the hypo bath.* In order to "fix" the film so that it would not rub or smear, the boys bathed it in a solution of sodium hyposulphate, called *hypo*.

—*set the film to wash.* The last step in developing the film is to wash it under running water. Because the dark and the light areas of the picture appear reversed on the film at this stage of development, it is called a "negative."

—*I'll pull a half-dozen prints.* After the negative has dried, it is used to make "positive" prints—that is, finished pictures on which the dark and light areas appear just as in the original scene.

◀ **Page 284**—*with more than ten points.* The antlers of a deer branch out into fingerlike points. The older a deer gets, the more points he has on his horns.

OUTDOOR SLEUTHING by Raymond L. Ditmars

(pages 286-291)

Almost everyone has at some time or other thought of himself as a "master sleuth," tracking down clues, sifting evidence, and finally "getting his man." In this article Dr. Raymond L. Ditmars, who was a famous naturalist, describes another kind of sleuthing that requires the keenest sort of detective ability.

◀ **Page 288**—*during the long winter sleep.* The woodchuck is only one of many animals that hibernate, or sleep through the winter.

◀ **Page 291**—*resonating or stridulating organs,* parts that produce vibrating or shrill, creaking sounds.

ON A NIGHT OF SNOW by Elizabeth Coatsworth (page 293)

In the first stanza the Cat's mistress speaks coaxingly. In the second stanza the Cat answers. If you have ever had a cat, you will know that a determined meow and an insistent paw can speak almost as clearly as the words the poet makes the Cat say.

OLD SLEWFOOT by Marjorie Kinnan Rawlings

(pages 294-310)

Penny Baxter, his son Jody, and Ma Baxter are characters in Marjorie Rawlings' fine book *The Yearling*, from which this selection is taken. Their life in the scrub country of Florida is a hard one, for the poor, sandy soil yields scant crops, and wild animals (especially Old Slewfoot the bear) prey on the Baxters' pigs and chickens. But there are pleasures, too. Jody likes nothing better than to go hunting with his father, who is wise in the ways of nature—and of boys.

◀ Page 294—*a right good chancet o' comin'*, a very good chance of coming. Words like "chancet," which are misspelled to show you how they are pronounced, will give you little trouble if you sound them out phonetically.

—*Old Slewfoot*. One foot was slewed (twisted) to one side, leaving a footprint that was easily recognized.

—*shot bag . . . powder horn . . . tinder horn*. The shotguns used at the time of this story (about 1870) did not fire cartridges. The shot and powder were loaded into the muzzle, together with a wad of cotton or moss and some tinder (flint and steel shavings used for setting off an explosion). Sometimes the tinder was wrapped in a bit of paper, called a "cap." The shot were carried in a bag; the other materials were carried in hollowed-out cows' horns.

◀ Page 295—*The trail'll not be too cold*, the trail will not be too faint or stale for the dogs to follow.

—*time to lay up*, a chance to stop and rest or eat.

—*his stomach bein' shrunk up from layin' up*. Here *layin' up* means "hibernating," which has caused him to lose weight.

◀ Page 296—*not lessen*, not unless.

—*They're the scapers gits*, they're the rascals that get.

—*You belong to figger*, you have to figure, or guess.

OLD SLEWFOOT (continued)

◀ Page 298—*time he comes out*, at the time he comes out of his winter sleep.

◀ Page 299—*bull bat*, the nighthawk.

◀ Page 303—*brown missile*, Julia.

—*a black storm broke*. The black bear attacked as fiercely and suddenly as a storm begins.

◀ Page 307—*go gittin' faintified*, become faint.

◀ Page 310—*County lines*. Local laws forbid a hunter to cross from his own county into another when hunting.

AN INDIAN SUMMER DAY ON THE PRAIRIE

by Vachel Lindsay (page 311)

Vachel Lindsay here imitates the style of the nature poems composed by American Indians, explaining a great natural wonder—the sun—by comparing it to familiar things.

CRADLE OF THE STORMS by Bernard R. Hubbard

(pages 313-324)

Father Bernard R. Hubbard is known as "the glacier priest." For many years he led an annual expedition to Alaska, exploring the great natural wonders of that region and making moving pictures of them. Head of the Geology Department of the University of Santa Clara, his interest in discovering important facts about the glaciers and volcanoes of Alaska has led him into some of the most dangerous spots of the earth. One result of his daring exploits has been a better understanding of the origin of our weather, such as the great storms that form in the Bering Sea and sweep into Canada and continental United States.

◀ Page 313—*the warm Japanese current*, a section of a warm current of water that flows along the eastern coast of Formosa, past Japan, and then in an easterly direction.

◀ Page 320—*like a spirit level*, like an instrument that is used to find out whether a surface is level. When the bubble of air in the glass tube of a spirit level is exactly at the middle of the tube, the surface is level.

In the Service of Mankind

GUTENBERG AND HIS PRINTING PRESS

by Rupert Sargent Holland (pages 326-339)

In anybody's list of the great inventors who have most helped mankind, the name of the inventor of printing would be included. John Gutenberg of Strasbourg, Germany, is usually credited with this important rôle. He was a lapidary—one who cuts, polishes, and engraves precious gems. But his curiosity as to how he might do a certain thing better than it had ever been done before led him to a new trade and a great discovery. We know very little of how Gutenberg happened to stumble onto his idea, or how he carried it through to brilliant success, but Rupert Sargent Holland has added fiction to fact and made a very probable story.

◀ Page 327—good *St. Christopher*, a saint who is said to have carried the child Christ across a river. He is the patron saint of travelers. The picture below is the same one Anna and her husband are discussing, the earliest and most famous block print. Notice that *St. Christopher* is gigantic in size and carries a full-grown palm tree for a staff. On the left bank of the swift stream are an old mill, a miller, a donkey, and a peasant who is carrying home a sack of flour. On the right bank is a monk holding a light for the Saint, while a rabbit contentedly munches grass.



GUTENBERG AND HIS PRINTING PRESS (continued)

◀ **Page 328**—*written out by the scribes.* All books in those days were written by hand by men called scribes (from the Latin word meaning "to write"). The scribes were usually monks.

◀ **Page 329**—*press them on vellum,* stamp them on a smooth white piece of specially prepared calfskin (or sheepskin or goatskin), used for writing material and book binding. The skin was also called parchment.

◀ **Page 333**—*the initial letters are illuminated.* An initial letter is the first letter of a word, especially the first word in a story or paragraph. In modern books the initial letter is often set in large type. (See the "O" on page 326.) In making hand-lettered books the monks often used gold leaf and colored inks to make elaborate initial letters; these were called "illuminated letters." Sometimes illumination was used to decorate other spots on a page in addition to the initial letter. (See picture on page 333.)

◀ **Page 338**—*stücke,* German. Pronounced shtyk'ə.

—*bonus homo,* Latin. Pronounced bō'nəs hō'mō.

—*first font of movable type.* A font of type is an assortment of letters, punctuation marks, etc. in one size and style of type. Since Gutenberg's day hundreds of different fonts have been designed. The font used in these notes that you are reading is 10 point Century Schoolbook. ("10 point" refers to the size.) The stories in this book are set in 11 point Century Schoolbook and the titles of the stories are set in 14 point Goudy bold.

THE LENS MAKER OF DELFT by Alice Clark Gilmore

(pages 340-349)

Gutenberg's prediction that his printing press would provide a "liquor" to quench mankind's thirst for knowledge has proved true. But books alone are not enough to answer all the questions that thinking minds ask. Some things must be seen, not just read about. Antony van Leeuwenhoek, the lens maker of Delft, showed the world how to see more

THE LENS MAKER OF DELFT (continued)

clearly than men had ever seen before. His persistent experiments were to change the whole history of human diseases and their cure.

◀ Page 340—*Mynheer* (mĭn hār' or mə nār'), a Dutch title of respect meaning *Mr.* or *Sir*.

◀ Page 341—*squinting shut one eye*. The modern method is to have both eyes open.

◀ Page 343—*proof . . . that blood circulates*. The idea that blood circulates was first suggested by William Harvey, an English scientist. But Harvey couldn't prove he was right until powerful lenses, such as Leeuwenhoek made, let doctors see for themselves. When doctors understood about circulation of the blood, they could diagnose diseases and care for sick people more intelligently.

—*Have you cleaned the town hall?* Leeuwenhoek was janitor of the town hall as well as owner of a small dry-goods shop. But he neglected both jobs in order to spend more time with his beloved lenses.

◀ Page 345—*dust-born creatures*. People believed that fleas simply sprang into being from dust and dirt, without having any parents.

—*the learned Aristotle*. Aristotle (ar'is tot'el) was a Greek philosopher who lived in the fourth century before Christ. He was interested in many branches of learning, including the nature of plants and animals. Many of his theories have been proved correct by modern science, but his ideas on how simple forms of life are produced were wrong.

◀ Page 346—*the Paris Academy of Science*, an organization founded in 1666 for the advancement of science. It is now known as the Institute of France. As a "corresponding" member of the Academy, Leeuwenhoek would aid in its work by writing accounts of his scientific work, but would not share in its management.

—*Fellow of the British Royal Society*, a title of distinction awarded by a British organization founded

THE LENS MAKER OF DELFT (continued)

in 1660 for "improving natural knowledge," that is, the knowledge of nature.

—*Peter the Great*, Peter I, Czar of Russia from 1682 to 1725.

THE STORY OF LOUIS PASTEUR by Josephine Pease (pages 350-363)

Whenever any investigator makes a discovery that aids mankind, he opens the way for more discoveries by other scientists and inventors. Gutenberg's press made it possible for all men to have books and to record their own discoveries easily. Leeuwenhoek's microscopes made it possible for others to study germs and diseases that mankind might enjoy better health and longer life. As you read this story of Louis Pasteur, you will see how he made use of earlier discoveries and made important new contributions of his own.

◀ Page 350—*Ecole Normale* (ā kôl' nôr mäl'), a normal school for the training of teachers. *Normale* comes from a Latin word which means "rule." Louis' father wanted him to become a teacher—and he did, as you will see.

◀ Page 352—*He looked through his microscope.* The picture shows Pasteur looking through a microscope that is very different from the ones Leeuwenhoek used. At the right of the picture are three drawings of bacteria which Pasteur may have seen. The blue and the red are found in water and soil; the third is yeast.

◀ Page 360—*Grand Cross of the Legion of Honor*, an order of merit awarded to soldiers, public officials, and others who have performed a distinguished service for France.

CRAWFORD LONG AND WILLIAM MORTON by Rosemary and Stephen Vincent Benét (pages 364-365)

Articles and poems about famous men and women are usually rather formal and dignified, for authors feel that great people should be treated with proper respect. The

CRAWFORD LONG AND WILLIAM MORTON (continued)

Benéts' poem is different; it is very informal, even amusing. Still they manage to make the reader feel that Crawford Long and William Morton were great benefactors of mankind.

Crawford Long was a Georgia doctor. On March 30, 1842, he performed an operation to remove a tumor from a patient's neck; to deaden the pain he administered ether. The operation was a success—and the first one ever performed through which the patient slept peacefully, suffering no pain! Still very few people, including doctors, knew about this wonderful new pain-killer. For several years a Boston dentist, William T. G. Morton, had been using a form of ether called "laughing gas" to ease the pain of his patients. On October 16, 1846, Dr. Morton administered ether to a patient of Dr. J. C. Warren, who performed the operation at the Massachusetts General Hospital in Boston. The public was invited to witness the history-making operation. News of this painless operation spread rapidly, and before long doctors everywhere were using ether as an anesthetic.

THE WORLD'S GREATEST DETECTIVE by Archer Wallace (pages 366-368)

In spite of the numerous new discoveries and inventions that are continually being made, the advances of science are slow. For only a very few outstanding men and women have the skill, the patience, and the knowledge needed to produce contributions that will benefit all mankind. Among the great discoverers of the past hundred years must be included Wilhelm Konrad Roentgen (vil'helm kon'rad rent'gen). It is with good reason that the author calls him "the world's greatest detective."

◀ Page 367—*X rays as they are now called*, because "X" in algebra is the symbol for an unknown quantity, and the nature of the rays was not certain.

GEORGE WASHINGTON CARVER by James Saxon Childers
(pages 369-374)

For those who search out the secrets of science and invention, success does not depend upon wealth, position, or influence. Gutenberg was a poor jeweler, Leeuwenhoek was a janitor, and many another great scientist has had to struggle against the handicap of ill health or poverty or prejudice. The article that follows proves that the true scientist can win success by his own efforts.

◀ **Page 369**—*Tuskegee Institute*, a college for colored students at Tuskegee (tus kē'gi) in eastern Alabama. Its principal for many years was the famous Negro educator, Booker T. Washington.

◀ **Page 371**—*failure to rotate crops*. Different crops make use of different food properties in the soil. Therefore, planting the same crop year after year uses up certain properties and weakens the soil. Rotating, or planting different crops in different seasons, gives the soil a chance to rebuild and keep up its strength.

◀ **Page 372**—*netted a loss*, resulted in a loss. The difference between working expenses and the amount earned is called the net profit or the net loss.

◀ **Page 373**—*okra fiber*. When properly treated, the okra plant becomes stringy and threadlike. These threads, or fibers, are twisted into rope.

Familiar Favorites by Master Writers

ULYSSES AND THE CYCLOPS retold by Charles Lamb

(pages 376-386)

This famous story of a doughty Greek hero and a powerful one-eyed giant has been read and enjoyed for more than two thousand years. Perhaps it was already old when the Greek poet Homer included it in his book *The Odyssey* (od'i si), which is a long poem about the wanderings of Odysseus (ō dis'ūs).

There have been many different versions of *The Odyssey*. No one now knows exactly how Homer wrote it, but several versions of it were preserved for hundreds of years in manuscript form. Then when printing became common, following Gutenberg's discovery, *The Odyssey* was printed and widely read. Many authors have translated it from the Greek. Charles Lamb, a well-known English writer of the nineteenth century, did not translate it himself, but based his story on the prose translation made by George Chapman, an English scholar.

Odysseus is now usually called Ulysses (ū lis'ēz), which is like the name given to him by the ancient Romans. Since Latin has been more widely read than Greek, the Roman name is better known. Ulysses was King of Ithaca, a rugged little island on the western coast of Greece. He was a hero of the Trojan War, which was waged for ten years between the Greeks and the inhabitants of Troy, a city in Asia Minor.

The conquest of Troy did not mark the end of Ulysses' adventures. Hardly had he and his soldiers embarked for home when they were shipwrecked. The story in your book begins at this point.

◀ Page 376—the *Cicons*. The Cicons (si'konz) were a mythical people who lived somewhere beyond the limits of the world as known at that time.

◀ Page 377—doubled the *Cape of Malea*, went around the Cape of Malea (mā'li ä), which is at the extreme southern point of Greece.

ULYSSES AND THE CYCLOPS (continued)

◀ Page 377—*the lotus tree*, a tree on which grew luscious fruit that caused the eater to become dreamy and forgetful of the past.

◀ Page 378—*arts of cultivation*, farming.

◀ Page 379—*against suppertime*, in preparation for suppertime.

—*It was Polyphemus*. The giant's name, Polyphemus (pol'i fē'məs), comes from two Greek words that mean "talking much." In short, he was a braggart.

—*the son of . . . Neptune*. Neptune (nep'tūn or nep'tūn) was the Roman god of the sea. The Greeks called him Poseidon (pō sī'dən).

—*left the rams and the he-goats without*, left them outside the cave.

◀ Page 380—*Jove . . . the guardian of all strangers*. Jove, also called Jupiter, was the ruler of gods and men. Hospitality to strangers was Jove's special concern, and human beings believed that lack of hospitality on their part was a sure means of making Jove angry. Jove was called Zeus (zūs) by the Greeks. (See note for page 170, "sacrifices to the altars," on page 489.)

◀ Page 382—*strength or cunning*. The Greeks admired physical strength; but even more they admired cunning, or craftiness. Homer makes much of Ulysses' cunning in dealing with Polyphemus.

◀ Page 386—*glad to have escaped at any cost*. He had escaped, but his troubles were not over by any means. Before finally reaching his home, he has a number of exciting experiences which you can read about in a translation of *The Odyssey*. (See the book list on page 523.)

THE SKELETON IN ARMOR

by Henry Wadsworth Longfellow (pages 387-393)

Longfellow was keenly interested in old legends. More than one of his famous poems were based on these stories which have come down from the past. He got the idea

THE SKELETON IN ARMOR (continued)

for "The Skeleton in Armor" when he heard that a skeleton, clad in long-rusted armor, had been dug up at Fall River, Massachusetts, not far from the poet's home in Cambridge. "The idea occurred to me," Longfellow wrote in a note, "of connecting the skeleton with the Round Tower at Newport." Longfellow thought that this mysterious circular tower at Newport, Rhode Island, had been built by the Vikings, ancient Scandinavian sea rovers. His belief was shared by many people, but it is now thought that the tower was erected at a much later time. Longfellow, with all a poet's fancy, imagined that the skeleton appeared in his study and commanded him to write its life story—and this poem is the result.

THE LADY OR THE TIGER? by Frank R. Stockton

(pages 394-401)

Here is a story that holds one's interest to the very last line—and even beyond that point. If, after reading the story, you are sure of the answer to the question that the author asks in his title, you can count yourself wiser than thousands of other readers.

◀ Page 394—*with contests of gladiators.* In olden days the rulers of cities like Rome and Athens built great arenas where entertainment was furnished to the pleasure-loving people. In these arenas one popular "sport" was a bloody contest between gladiators—armed fighters, usually slaves or men captured in warfare.

◀ Page 395—*blowing joyous airs on golden horns.* The horns were musical wind instruments made of animal horns and painted golden.

◀ Page 396—*the apple of his eye, his dearest possession.* The pupil (or apple) of the eye was considered its most valuable part.

—*of fine blood but low station, of good family but not of royal or high rank.*

THE ADVENTURE OF THE BLUE CARBUNCLE

by Sir Arthur Conan Doyle (pages 402-426)

Sherlock Holmes is the world's best-known detective. This master sleuth and his admiring friend Dr. Watson were created by the English author, Sir Arthur Conan Doyle. It is Dr. Watson who supposedly records the adventures of the great Holmes; so the stories are told from his viewpoint. In this story of the blue carbuncle—which we soon learn is a very valuable gem—Dr. Watson starts the tale by recording a visit to his famous friend; and before he reaches the end, he has given us a pretty complete idea of the brilliant detective's methods of unraveling a baffling mystery.

◀ Page 403—*Peterson, the commissionaire.* A commissionaire (kə mish'ən âr') is a former British soldier who has been given a job by the government, such as delivering packages or acting as a doorman. Peterson is the doorman at the building in which Holmes lives in London.

◀ Page 405—*Did he not advertise?* Did he not make an announcement in the "Lost and Found" columns of the newspapers?

—*You know my methods.* Holmes' methods of analyzing clues are clearly indicated on pages 406-407. Notice Dr. Watson's bewilderment and Holmes' clear explanations of how he discovered important facts about the owner of the battered old hat.

—*You are too timid in drawing your inferences,* you lack imagination in figuring out the meaning of what you see.

◀ Page 406—in the peculiar introspective fashion which was characteristic of him. When Holmes was studying clues, he always seemed to be lost in his own thoughts; one could almost see his mind working through the problem step by step.

◀ Page 407—as a peace offering to his wife, as a means of softening his wife's anger at him for staying out so late. The expression comes from the ancient practice of making

THE ADVENTURE OF THE BLUE CARBUNCLE (continued)

a sacrifice to the gods in return for their help in bringing peace.

◀ Page 409—*blue carbuncle*. A carbuncle is usually a deep-red jewel, especially a garnet, cut in a smooth rounded shape. The word comes from the Latin word *carbunculus*, meaning "little coal" and was formerly used as the name of any jewel that shone like a glowing fiery coal.

—*the reward offered of £1000*. A reward of a thousands pounds in English money would have been equal, at the time of this story, to about \$5000 in United States money.

—*on the 22nd instant*, on the twenty-second of the present month. This expression was formerly much used in business letters, but the practice is going out of style.

◀ Page 411—*221B, Baker Street*. Holmes' address has become almost as famous as Holmes himself. The banking company which happens to be located at this street and number still receives letters addressed to Mr. Holmes and asking the great detective's help.

—*forty-grain weight*. There are 7000 grains to a pound; so this gem weighs less than $1/10$ of an ounce, or in other words is "rather smaller than a bean" as Peterson described it on page 408.

—*crystallized charcoal*. Like diamonds and other precious jewels, the carbuncle is formed as coal or charcoal crystallizes (hardens into regularly shaped pieces called crystals), a process which takes hundreds, even millions, of years.

◀ Page 412—*professional round*, visits to patients. Dr. Watson is a physician.

—*a Scotch bonnet*, a kind of cap popular in Scotland. See the picture on page 413.

◀ Page 414—*the British Museum*, a national museum in London, where antiques, books, and manuscripts are preserved.

THE ADVENTURE OF THE BLUE CARBUNCLE (continued)

◀ **Page 414**—*in Bloomsbury*, a third-rate boardinghouse district in central London, formerly a fine residential district. The British Museum is located here.

—*into Holborn*, a business district, adjoining Bloomsbury; also the main street in that district.

◀ **Page 415**—*Covent Garden*, a large market square, where meat, fruit, and vegetables are sold in open-front booths or stalls.

◀ **Page 417**—*I have a fiver on it*, I will bet a five-pound bank note (about \$25.00) on the fact.

—*I'll have a sovereign on with you*, I'll bet you a sovereign (a gold coin that was worth one pound, or about \$5.00).

—*there is still one left in my shop*. The salesman thinks Mr. Holmes is as silly as a goose to be questioning him.

—*117, Brixton Road*. Brixton Road is a thoroughfare leading into one of the suburban districts of London. Notice that the British use a comma after the number in a street address.

◀ **Page 418**—*at 7s. 6d.*, at 7 shillings, 6 pence, or about \$1.90. The abbreviation "d" for pence comes from the Latin *denarius*, which was a coin of similar value. At the time of the story a shilling was worth about twenty-five cents and a pence two cents in United States money.

—*doing me on a wager*, getting the best of me on a bet.

◀ **Page 420**—*a four-wheeler*, a four-wheeled cab drawn by a horse.

◀ **Page 422**—*in the dock*, in the place where an accused person stands in a law court.

◀ **Page 423**—*Then the charge against him will break down*. Unless the chief person who had given evidence against Horner appeared in court to testify, there would be little chance of convicting the accused man.

—*to Kilburn*, to a suburb of London.

HOW THEY BROUGHT THE GOOD NEWS FROM GHENT TO AIX
by Robert Browning (pages 427-429)

Browning told a friend that he wrote this poem as he lay "under the bulwark of a vessel . . . after I had been at sea long enough to appreciate the fancy of a gallop on the back of a certain good horse, 'York,' then in my stable at home." Certainly his fancy caught the spirit of the three determined riders and their gallant horses as they sped toward their goal. The poem has no historical foundation, though the poet probably had in mind some incident of a European war long ago. At any rate he places the start of the ride in the city of Ghent (gent), Belgium, and the end of it in Aix-la-Chapelle (āks'lā shā pel'), also called Aachen (ä'ken), Prussia. That was a distance of ninety miles—and it had to be covered with all possible speed to avert disaster to the citizens of Aix. The rhythmic rise and fall of the lines almost makes you feel that you are in the saddle with a galloping horse beneath you.

THE CRATCHITS' CHRISTMAS DINNER by Charles Dickens
(pages 430-435)

If you listen to the radio during the Christmas season, you are almost sure to hear Charles Dickens' famous story *A Christmas Carol*. No other tale better interprets the spirit of Christmas. In the complete story you meet the miserly, hard-hearted old Scrooge, who growls that Christmas is a humbug and that "every idiot who goes about with 'Merry Christmas' on his lips, should be boiled with his own pudding and buried with a stake of holly in his heart." In this short selection from the famous *Carol* you meet Scrooge's humble, hard-worked clerk Bob Cratchit and his family, including lame Tiny Tim, who believed that Christmas is the best day in the year. If you read the whole story, you will see how the Ghosts of Christmas Past and Christmas Present and Christmas Yet To Come persuade Scrooge to agree with Tiny Tim's idea of Christmas.

THE CRATCHITS' CHRISTMAS DINNER (continued)

◀ Page 430—*twice-turned gown*, ripped apart and sewed up again wrong-side out when the right side was too soiled and worn.

—*outside the baker's*. The goose had been taken to a baker's shop to be cooked, probably because the Cratchits didn't have a big enough oven.

—*sage-and-onion*, in the stuffing for the goose.

◀ Page 431—*We'd a deal of work to finish up last night*. Martha was apprenticed to a milliner, learning how to make ladies' hats, and lived at the milliner's shop.

◀ Page 432—*into the wash-house, that he might hear the pudding singing in the copper*. The wash-house was a lean-to shed in which the family wash was done. Here also was a stove on which the plum pudding was steamed in the copper washboiler.

—*rallied Bob on his credulity*, teased Bob on his readiness to believe the joke.

◀ Page 433—*to which a black swan was a matter of course*, compared to which the rare black swan would seem commonplace.

◀ Page 434—*That was the cloth*, the cloth in which the pudding was wrapped while being cooked, to keep it in a firm ball.

◀ Page 435—*like a speckled cannon ball*, speckled with plums.

—*half of half-a-quartern of lighted brandy*. Half of a half of a fourth (one sixteenth) of a pint of brandy was poured over the pudding and lighted, giving off a bright glow for a few moments.

YUSSOUF by James Russell Lowell (pages 436-437)

The unwritten law of the desert requires every man to give food and shelter to the stranger, with no questions asked. Even an enemy is allowed to come and go in peace, but Yussouf does more than the law requires and proves his right to be called "The Good."

THE SWINEHERD by Hans Christian Andersen

(pages 438-444)

Hans Christian Andersen, the Danish author, is best known for his fairy stories written for young children. But here is one of his gayer, more grown-up stories that anyone can enjoy. For once the beautiful Princess of "long, long ago" does *not* get what her heart is set on!

◀ Page 438—*ladies in waiting*, attendants usually of good, often of noble families, who were chosen to be with a queen or princess. They were companions, not servants.

◀ Page 439—*Superbe! Charmant!* These French words mean exactly what you think they must—*superb* and *charming*. The first is pronounced sy perb', and the second shär män'.

◀ Page 440—*Ach, du lieber, etc.* Ah, thou dear Augustin, All is lost, lost, lost! (äh dü lē bär ou'güs tēn, ä'ləs ist vēr).

◀ Page 442—the *Lord Chamberlain*, high officer in charge of the household of a king or emperor.

—*Mistress of the Robes*, attendant in charge of a queen's or princess' clothes.

◀ Page 443—he *pulled up his slippers*. His slippers were made of soft leather which had curled over at the back and flattened down under his heels.

THE LEGEND OF SLEEPY HOLLOW by Washington Irving

(pages 445-469)

Washington Irving, America's first great writer, lived for many years in his spacious home "Sunnyside," near the sleepy village of Tarrytown, New York. He liked to look off toward the towering Catskill Mountains and to roam along the high banks that rose sharply above the waters of the majestic Hudson River. Irving knew the whole countryside well, and he never tired of gathering old stories and legends about the region. The villagers of Tarrytown and nearby Sleepy Hollow knew many a good tale and willingly told them to Irving. That is how Irving got the ideas for his two best stories—"Rip Van Winkle" and "The Legend of Sleepy Hollow." But you will agree that no Dutch

THE LEGEND OF SLEEPY HOLLOW (continued)

housewife of old New Netherlands could have told them with half the skill that Irving shows.

◀ Page 445—*This sequestered glen*, a narrow valley in a far-removed, little visited spot.

◀ Page 446—a *Hessian trooper*, one of the German soldiers hired by the British to fight against the Americans in the Revolutionary War. For a long time after the war, any much-despised person was referred to as a "Hessian."

◀ Page 447—*formidable birch tree*, dreaded birch tree. The branches were used for the frequent switchings which old-fashioned teachers believed were as much a part of education as reading, writing, and arithmetic.

—*comforts of the cupboard*, food.

◀ Page 448—*carried away the palm*, took the honors, the prize. In ancient times the palm branch was the symbol of victory.

◀ Page 449—*No tale was too gross or monstrous for his capacious swallow*. Ichabod had a huge capacity for taking in and believing all sorts of supernatural tales, no matter how exaggerated or absurd they might be.

—*in the chimney corner, where, of course, no specter dared to show his face*. It was an ancient belief that the members of a household and their guests were provided safety from evil spirits by the guardian spirits that dwelt on the hearth of the home.

—*nightly scourings*, quick journeys over the countryside each night.

◀ Page 452—a *knight-errant of yore*, a knight who traveled about in search of adventure long ago.

◀ Page 454—*sundry contraband articles and prohibited weapons*, various articles and weapons that they had been forbidden to have.

◀ Page 455—"quilting frolic," a gay party at which the women made quilts as an excuse for a get-together.

◀ Page 456—*Heer van Tassel*. *Heer* is an old Dutch title meaning Mr. or Sir—a shortened form of *Mynheer*.

THE LEGEND OF SLEEPY HOLLOW (continued)

◄ Page 458—*St. Vitus himself.* St. Vitus (vī'tes) was a child martyr who became the patron saint of people suffering from epilepsy and nervous diseases. These sufferers danced before his image. The name is usually applied to anyone who is extremely nervous and jerky.

—*Many dismal tales were told about funeral trains, and mourning cries and wailings,* many sad tales were told about funeral processions and about the strange cries and wailings of people who were known to be dead.

—*the unfortunate Major André.* Major John André (an'drā) was a British officer who was captured near Tarrytown and hanged as a spy during the American Revolution.

◄ Page 459—*mounted on pillions behind their favorite swains.* The girls sat on pads attached at the rear of the saddles and rode behind their favorite young country suitors.

◄ Page 460—*to have a tête-à-tête (tāt'ə tāt')* with the heiress, to have a private conversation with Katrina, who would inherit the fortune of her father.

—*the very witching time of night,* the most mysterious and bewitching hour of night—on the stroke of midnight, when ghosts are said to start stirring.

◄ Page 461—*the Tappan Zee,* a 12-mile expansion of the Hudson River which forms a large bay. Zee (zē or zā) is Dutch for "sea."

◄ Page 466—*according to rule, in a flash of fire and brimstone.* According to superstitious belief, evil spirits could not come on holy ground (the churchyard) and would explode in flame and smoke if they tried to do so.

◄ Page 468—*a book of dreams and fortunetelling,* a book giving the "meaning" of dreams and explaining how to tell fortunes.

◄ Page 469—*the ten-pound court,* an old Dutch court in New Amsterdam in which only minor cases were tried; the largest fine that could be fixed against a guilty person was ten pounds, or about fifty dollars.

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In the Service of Mankind

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| <p><i>Adventures and Escapes of Gustavus Vasa</i>
Hendrik Van Loon (Dodd)
<i>Born to Command</i> (Eisenhower)
Helen Nicolay (Appleton)
<i>Champlain</i>
Louise Hall Tharp (Little)
<i>Dom Pedro of Brazil</i>
Mildred Criss (Dodd)
<i>Franklin</i>
André Maurois (Didier)
<i>George Washington Carver</i>
Rackham Holt (Doubleday)
<i>Give Me Liberty</i> (Patrick Henry)
Hildegard Hawthorne (Appleton)
<i>Historic Inventions</i>
Rupert S. Holland (Macrae-Smith)
<i>Invincible Louisa</i> (Louisa Alcott)
Cornelia Meigs (Little)</p> | <p><i>Julia Ann</i> (Travis)
R. M. Varble (Doubleday)
<i>Oliver Hazard Perry</i>
A. H. Fenton (Farrar)
<i>Paul Revere</i>
Rogers and Beard (Lippincott)
<i>Pasteur, Knight of the Laboratory</i>
F. E. Benz (Dodd)
<i>Peter the Great and Garibaldi</i>
Nina Brown Baker (Vanguard)
<i>Tales from the Vienna Woods</i>
(Strauss)
David Ewen (Holt)
<i>Walt Whitman</i>
Babette Deutsch (Messner)
<i>Wings for Words</i> (Gutenberg)
Douglas McMurtrie (Rand)
<i>Young Walter Scott</i>
Elizabeth Janet Gray (Viking)</p> |
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Familiar Favorites by Master Writers

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| <p><i>Adventures of Baron Munchausen</i>
Munchausen (Pantheon)
<i>Adventures of Odysseus and the Tale of Troy</i>
Padraic Colum (Macmillan)
<i>Adventure Waits</i>
Helen Josephine Ferris, editor (Harcourt)
<i>Bold Dragoon and Other Ghostly Tales</i>
Washington Irving (Knopf)
<i>Boys' Book of Great Detective Stories</i>
Howard Haycraft, editor (Harper)
<i>Boys' Sherlock Holmes</i>
Sir Arthur Conan Doyle (Harper)
<i>Call of the Wild</i>
Jack London (Macmillan)
<i>Casting Away of Mrs. Lecks and Mrs. Aleshine</i>
Frank R. Stockton (Appleton)
<i>Chucklebait</i>
M. C. Scroggins, editor (Knopf)
<i>Christmas Carol</i>
Charles Dickens (Lippincott)
<i>Grimm's Fairy Tales</i>
Jacob and Wilhelm Grimm (Pantheon)</p> | <p><i>Heroes of the Kalevala</i>
Babette Deutsch (Messner)
<i>Jim Davis</i>
John Masefield (Stokes)
<i>Kidnapped, and David Balfour</i>
Robert Louis Stevenson (Scribner)
<i>Kim and Captains Courageous</i>
Rudyard Kipling (Doubleday)
<i>Lady or the Tiger and Other Stories</i>
Frank R. Stockton (Scribner)
<i>Last of the Mohicans</i>
James Fenimore Cooper (Scribner)
<i>Mutiny on the Bounty</i>
Nordhoff and Hall (Little)
<i>Old-Fashioned Girl</i>
Louisa May Alcott (Little)
<i>Pilgrim's Progress</i>
John Bunyan (Lippincott)
<i>Prince and the Pauper</i>
Mark Twain (Harper)
<i>Thirteen Ghostly Yarns</i>
E. Sechrist, editor (Macrae)
<i>Three Musketeers</i>
Alexandre Dumas (Dodd)
<i>Twenty Thousand Leagues Under the Sea and Mysterious Island</i>
Jules Verne (Scribner)</p> |
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GLOSSARY

Pronunciation Key

The pronunciation of each word is shown just after the word, in this way: a **bashed** (ə basht/). The letters and signs used are pronounced as in the words below. The mark / is placed after a syllable with primary or strong accent, as in the example above. The mark ' after a syllable shows a secondary or lighter accent, as in **ab o li tion** (ab/ə lish/ən).

a hat, cap	j jam, enjoy	u cup, butter
ā age, face	k kind, seek	û full, put
ā care, air	l land, coal	ü rule, move
ä father, far	m me, am	ū use, music
	n no, in	
b bad, rob	ng long, bring	
ch child, much	o hot, rock	v very, save
d did, red	ō open, go	w will, woman
	ô order, all	y you, yet
e let, best	oi oil, voice	z zero, breeze
ē equal, see	ou house, out	zh measure, seizure
ēr term, learn	p paper, cup	
	r run, try	ə represents:
f fat, if	s say, yes	a in about
g go, bag	sh she, rush	e in taken
h he, how	t tell, it	i in pencil
i it, pin	th thin, both	o in lemon
ī ice, five	th then, smooth	u in circus

This pronunciation key is from *Thorndike-Century Junior Dictionary, Revised Edition*.

abalone

abalone (ab'ə'lō'ni), an animal with a soft body covered by a large, rather flat shell.

abhor (abhôr'), shrink away from with horror; feel disgust for.

acceleration (aksel'ərā'shən), increase in speed; hastening.

accelerometer (aksel'ērōm'itēr), a device for measuring rate of speed increase.

accession (aksesh'ən), 1. attaining. His accession to the presidency pleased his friends. 2. addition. The school was increased by the accession of forty new pupils.

acclaim (əklām'), 1. applaud; shout welcome; show approval of 2. announce with signs of approval. 3. applause; approval; welcome.

accumulation (əkū'mūlā'shən), 1. collection. The accumulation of useful knowledge is one result of reading. 2. material collected; mass. His accumulation of old papers filled two closets.

adjacent (əjā'sənt), near; adjoining.

afteryard (af'təryārd'), a spar that supports a sail toward the stern of a vessel.

alias (ā'liās), 1. an assumed name; another name. 2. otherwise; otherwise called; as, Jones alias Williams.

alpaca (alpak'ə), 1. a sheeplike animal of South America. 2. a cloth made from its wool.

ambiguous (am big'üēs), 1. having more than one meaning. 2. doubtful; not clear; uncertain.

Americanism (əmer'ikən'izəm), 1. devotion or loyalty to the United States. 2. word, phrase, or meaning used or originating in the United States. 3. custom or trait peculiar to the United States.

Americanisation (əmer'ikənizā'shən), act or process of making or becoming American in habits, customs, or character.

arduous

ancestral (anses'trəl), 1. of ancestors. The ancestral home of the Pilgrims was England. 2. inherited from ancestors.

anesthetic (an'isthet'ik), thing that causes loss of the feeling of pain, touch, cold, etc. Chloroform and ether are anesthetics.

angular (ang'gūlār), 1. sharp-cornered; formed by two lines or surfaces that meet; as, an angular piece of rock. 2. with bones that are prominent from leanness; ungraceful.

animalcule (an'imāl'kūl), very tiny animal. It usually cannot be seen without a microscope.

animated (an'imāt'id), 1. living; alive. 2. lively; gay; vigorous.

anonymous (ənon'imās), 1. by or from a person whose name is not known or given. 2. having no name.

antagonist (antag'ənist), one who fights, struggles, or contends against another in a combat or contest of any kind; opponent.

antechamber (an'tichām'bər), room leading into a main room.

ant Climax (an'tiklī'maks), the opposite of climax; a descent from the lofty or important to the trivial, or unimportant.

apparition (ap'ərish'ən), 1. ghost or ghostlike thing. 2. appearance of something strange or unexpected.

aquatic (əkwat'ik), 1. growing or living in water. 2. taking place in or on water.

arbitrator (ār'bitrā'tər), 1. person chosen to decide a dispute. 2. person with full power to judge and decide.

arduous (ār'jūēs or ār'dūēs), 1. hard to do; requiring much effort; as, an arduous lesson. 2. using up much energy; as, an arduous effort to learn the lesson. 3. steep; hard to climb.

arsenal (är/sinəl), a building for storing or making weapons and ammunition for an army or navy; place for keeping guns, powder, etc.

artisan (är/ti-zən), workman skilled in some industry or trade.

ascertain (as/ər-tān/), find out.

assumption (ə-sump/shən), 1. act of taking for granted or of supposing. Her assumption that I was frightened made me angry. 2. act of taking upon oneself. 3. presumption; unpleasant boldness.

asunder (ə-sun/dər), 1. apart; separate. 2. in pieces, into separate parts.

auger (ō/gər), tool for boring holes.

augur (ō/gər), 1. a priest in ancient Rome who made predictions and gave advice. 2. predict; foretell. 3. be a sign. Augur well means be a good sign. Augur ill means be a bad sign.

avid (av/id), eager; greedy. The miser was avid for gold.

awesome (ō/səm), causing great fear, wonder, or reverence. A great fire is an awesome sight.

ballast (bal/əst), 1. something heavy carried in a ship, balloon, etc., to steady it. 2. gravel or crushed rock used in making the bed for a railroad track. 3. something heavy carried in a balloon or dirigible to steady it.

baneful (bān/fəl), deadly; harmful.

banish (ban/ish), 1. condemn to leave a country; exile. 2. force or drive away.

bannock (ban/ək), a flat cake made of oatmeal or barley flour.

barrow¹ (bar/ō), 1. a frame with two short shafts or handles at each end, used for carrying a load. 2. wheelbarrow.

barrow² (bar/ō), a mound of earth or stones.

bedight (bi dīt/), adorned.

behoove (bihūv/), 1. be necessary for. It behooves you to work hard if you want to keep this job. 2. be proper for. It does not behoove any young child to give advice to his parents.

benediction (ben/i dik/shən), 1. the asking of God's blessing at the end of a service in church. 2. blessing.

benefactor (ben/i fak/tər), person who has given money or kindly help.

beseech (bisēch/), ask earnestly; beg. He besought my advice.

besom (bē/zəm), broom made of twigs.

besought (bisôt/), See beseech.

betoken (bi tō/kən), be a sign of; show.

blackjack (blak/jak/), a small oak tree.

bland (bland), 1. smooth; mild; soft; gentle. 2. agreeable; polite.

blemish (blem/ish), 1. a stain; scar; injury; defect. 2. injure; mar.

boomerang (būm/ər ang), a bent piece of hard wood used as a weapon by the native Australians. It can be thrown so that it returns to the thrower.

boorish (būr/ish), rude; having very bad manners.

bravado (brə vā/dō), great show of boldness without much real courage; boastful defiance without much real desire to fight.

brig (brig), 1. a square-rigged ship with two masts. 2. prison on a ship.

burgomaster (bēr/gō mas/tər), mayor of a town in the Netherlands, Flanders, or Germany.

burly (bēr/li), strong; sturdy; big. **buxom** (buk/səm), plump and good to look at; healthy and cheerful.

cacao (kə kă/ō), 1. a small tree from whose seeds cocoa and chocolate are made. 2. the seeds of the tree.

cameo

cameo (kam/iō), a precious stone carved so that there is a raised part on a background.

canticle (kan/tikel), a short song, hymn, or chant.

cavalier (kav/ə lēr/), 1. horseman; mounted soldier; knight. 2. courteous gentleman.

cere monious (ser/imō/nias), very formal; extremely polite.

chagrin (shəgrin/), 1. a feeling of disappointment, failure, or humiliation. 2. cause to feel chagrin.

chalice (chal/is), 1. cup. 2. the cup used at the Communion service. 3. a flower shaped like a cup.

chaplet (chap/lit), 1. wreath for the head. 2. string of beads.

charioteer (char/iatēr/), person who drives a two-wheeled car pulled by horses.

chivalrous (shiv/ə lras), knightly; gallant; courteous; considerate; helpful; honorable.

choleric (kol/ərik), easily made angry; often angry.

clammy (klam/i), cold and damp.

clew (klü), 1. a guide to solving a problem. 2. ball of thread or yarn. 3. metal ring in the corner of a sail.

clot (klot), 1. half-solid mass; as, a clot of blood. 2. form into clots.

cockade (kokād/), knot of ribbon or a rosette worn on the hat.

cockleshell (kok/ə shel/), a small, light, shallow boat.

commemorate (kə mem/ə rät), 1. preserve the memory of. 2. honor the memory of.

compatriot (kəm pä/triət), fellow countryman.

competitive (kəm pet/i tiv), pertaining to a contest or effort in which one tries to win or gain something for which others are trying at the same time.

coquette

concentration (kon/sən trā/shən),

1. bringing together to one place.

2. making stronger. 3. being brought together or made stronger.

4. close attention; as, concentration on tomorrow's lesson.

conch (kongk), a large, spiral sea shell.

concussion (kən kush/ən), 1. shaking; shock. 2. an injury to the brain or spine from a blow or fall or other shock.

confluence (kon/fliu əns), 1. a flowing together; as, the confluence of two rivers. 2. a coming together of people or things; a throng.

consecutive (kən sek/ü tiv), following without interruption.

consign (kən sīn/), 1. give, transfer, or deliver for safekeeping or for a lasting condition. The man was consigned to prison. The body was consigned to the grave. 2. transmit; send.

constellation (kon/stälā/shən), a group of stars.

constrain (kən strän/), control by force; compel.

contemplation (kon/təm plā/shən), 1. looking at or thinking about something for a long time; deep thought. 2. intention.

converge (kən vēj/), 1. tend to meet in a point. 2. turn toward each other. If you look at the end of your nose, your eyes converge.

3. come together.

convulsion (kən vul/shən), 1. a violent contraction of the muscles; a fit. 2. a fit of laughter. 3. violent disturbance.

copious (kō/piəs), plentiful; abundant.

coquette (kō ket/), a flirt; woman who tries to attract men just to please her vanity.

hat, äge, cäre, fär; let, bē, tērm; it, ice; hot, öpen, ördör; oil, out;
cup, püt, rüle, üse; circus

coronet

- coronet** (kor/ə'net), 1. small crown.
2. a circle of gold, jewels, or flowers worn around the head.
- corps** (kōr), 1. a division of an army; as, the Marine Corps.
2. group of people with special training; as, a corps of nurses.
- corpuscle** (kōr/pusəl), 1. a very small particle. 2. any of the cells that form a large part of blood.
- covert** (kuv/ərt), 1. secret; hidden; disguised; as, covert glances at one's neighbors. 2. a shelter; a hiding place; a thicket in which animals hide.
- cow peas** (kou/pēz/), the seed of a plant that has very long pods.
- cranium** (krā/nīəm), 1. skull.
2. part of the skull enclosing the brain.
- crater** (krā/tər), 1. the opening of a volcano. 2. a bowl-shaped hole.
- cravat** (krə'vat/), 1. necktie.
2. neckcloth; scarf.
- credentials** (kri den/'shəlz), 1. letters of introductions; references.
2. certificate of character, conduct, qualifications, value, etc.
- cringe** (krinj), 1. shrink; crouch in fear; bend down from lack of spirit.
2. act of cringing.
- cruller** (krul/ər), rich, sweet dough fried brown in deep fat.
- cuttle fish** (kut/əl'fish/), an animal that has ten sucker-bearing arms and squirts out a black fluid.
- cylindrical** (silin/'dri kəl), shaped like a cylinder. Silos, candles, and water pipes are usually cylindrical.
- data** (dā/tə or dat/ə), facts; facts known or granted; information.
- debris** (dā brē/), scattered fragments; ruins; rubbish.
- decade** (dek/əd), ten years.
- decentration** (di klen/'shən), 1 downward movement, bend, or slope.
2. a sinking into a lower or inferior condition; decline. 3. polite refusal.

disperse

- deduce** (di dūs/ or di dūs/), reach a conclusion by reasoning.
- deduction** (di duk/'shən), 1. act of taking away. 2. amount deducted.
3. inference from a general rule or principle. A person using deduction reasons from general laws to particular cases. 4. thing deduced; a conclusion. Sherlock Holmes made brilliant deductions.
- delegation** (del/igā/'shən), 1. act of appointing or sending (a person) as a representative. 2. a group of persons who act as representatives.
- dexterity** (dekster/'iti), skill in using the hands or mind; cleverness.
- diagnose** (dī/æg nōs/), 1. find out what disease a person has by examination and careful study of the symptoms. 2. make a careful study of the facts about something to find out its essential features, faults, etc.
- dialect** (dī/ə lekt), form of speech peculiar to a district or class; as, the Scottish dialect, the dialect of the Zulus.
- diesel** (dē/zəl), a kind of engine in which a heavy oil is used as fuel.
- dilapidated** (dilap/'idāt'id), falling to pieces; partly ruined or decayed through neglect; as, a dilapidated house.
- dilate** (dīlāt/), 1. make or become larger or wider. The pupil of the eye dilates when the light gets dim.
2. speak or write at length.
- discard** (dis kărd/ for 1, dis/kărd for 2 and 3), 1. throw aside; give up as useless or worn out. 2. act of throwing aside as useless. 3. thing or things thrown aside.
- disburse** (dis pens/), 1. give out; distribute. 2. apply; carry out.
3. Disburse with means (1) do away with. (2) do without.
- disperse** (dis pərs/), scatter; spread in different directions.

dissemble

dissemble (disem/bəl), 1. disguise; hide (a feeling, thought, purpose, etc.). She dissembled her anger with a smile. 2. put on the appearance of; give a false impression. 3. pretend not to see or notice; ignore.

dominant (dom'inənt), 1. ruling; governing; controlling; most influential. 2. rising high above its surroundings; occupying a commanding position. A dominant cliff rose at the bend of the river.

donor (dō'nər), giver.

doughty (dou'ti), 1. strong; stout; brave. 2. making a fine appearance; showy.

duffel (duf'əl), equipment used by a sportsman or camper.

dungarees (dung/gə'rēz'), trousers made of coarse cotton cloth.

eider (i'dər), a large sea duck. The soft breast feathers are called *down*.

ejaculate (ijak'ūlāt), say suddenly and briefly; exclaim.

embellish (em bel'ish), 1. decorate; ornament; adorn. 2. touch up or improve (an account, a story, etc.) by additions.

encumber (en kum'bər), 1. burden with weight, difficulties, cares, debt, etc. 2. fill; block up. His yard was encumbered with rubbish.

enigmatical (ē'nig mat'i kəl), 1. puzzling; perplexing; mysterious. 2. indicating a riddle or puzzle that is to be guessed.

ensue (en sū' or en sū'), follow; come after; happen as a result.

equipment (ek'wipij), 1. carriage. 2. carriage with its horses, driver, and servants. 3. a group or train of such carriages and attendants. 4. equipment; outfit.

fancier

erratic (irat'ik), 1. uncertain; irregular; as, an erratic clock. 2. queer; as, erratic ideas. 3. wandering; as, the erratic moon.

eruption (irup'shən), 1. bursting forth. 2. throwing forth of lava, etc., from a volcano. 3. outburst.

etiquette (et'iket), conventional rules for behavior in polite society.

eulogy (ū'ləji), speech or writing in praise of a person or thing; high praise.

evangelist (ivan'jalist), 1. preacher of the gospel. 2. travelling preacher who stirs up religious feeling.

evasive (ivā'siv), tending or trying to get away from by trickery; tending or trying to avoid by cleverness. "Perhaps I may go" is an evasive answer.

exalt (eg zolt'), 1. praise; honor. 2. make high in rank, honor, character, or quality.

excavator (eks'kavā'tər), 1. person or thing that digs or hollows out. The excavators tunneled through solid rock. 2. one who uncovers by digging.

exotic (eg zot'ik or eksot'ik), foreign; not native; strange.

extinct (eks tingkt'), 1. no longer existing. 2. gone out; not burning; as, an extinct volcano.

facility (fə sīl'i ti), 1. ease; absence of difficulty. The boy ran with the facility of a racer. 2. power to do anything easily and smoothly. 3. aid; convenience. Swings and horizontal bars are facilities of a playground.

fancier (fan'siər), person who is especially interested in something. A dog fancier is interested in breeding and raising dogs.

hat, äge, cäre, fär; let, bē, tērm; it, Ice; hot, öpen, örder; oil, out;
cup, püt, rüle, üse; circæ

fearsome

- fearsome** (fēr/səm), 1. causing fear; frightful. 2. timid; afraid
- fermentation** (fēr'men tā/shən), 1. act or process of becoming sour or alcoholic and giving off gas 2. excitement; unrest.
- fervent** (fēr/vənt), 1. showing warmth of feeling; very earnest. 2. hot, glowing.
- fervor** (fēr/vər), great warmth of feeling; earnestness.
- festoon** (fes tūn/), 1. flowers, leaves, ribbons, etc., hanging in a curve. 2. anything so arranged. 3. form into festoons; adorn with festoons.
- fetish** (fē/tish), 1. thing supposed to have magic powers. 2. of or having to do with such a thing. 3. any object of unreasoning reverence or blind devotion.
- fetter** (fet/ər), 1. chain or bond for the feet. Fetters prevent escape. 2. bind with fetters. 3. bind; restrain.
- fee** (fis), a kind of mongrel dog.
- fe** (fi), for shame! shame!
- firkin** (fēr/kin), 1. quarter of a barrel, used as a measure of capacity. 2. small wooden cask for butter, etc.
- fitful** (fit/fəl), irregular; going on and then stopping for a while; as, a fitful sleep, a fitful conversation.
- flail** (fiāl), 1. instrument for threshing grain by hand. 2. strike with a flail. 3. beat; thrash.
- flaw** (flō), a crack; slight defect; fault.
- fluctuate** (fluk/chū āt), move like waves; rise and fall; change continually; waver. Prices fluctuate from year to year. The temperature fluctuates.
- forceps** (fōr/seps), small pincers or tongs used by surgeons, dentists, etc., for seizing and holding.
- forebear** (fōr/bār), ancestor; forefather.

heckle

- forum** (fō/rəm), 1. the public square of an ancient Roman city where business was done and courts and public assemblies were held. 2. an assembly for the discussion of questions of public interest.
- fracas** (frā/kəs), disorderly noise; noisy quarrel or fight
- fraught** (frōt), loaded; filled. A battlefield is fraught with horror.
- fustian** (fus/chən), 1. a coarse, strong cloth. 2. made of such cloth.
- futile** (fū/til), 1. useless; not successful. 2. trifling; not important.
- gazelle** (gəzel/), small, graceful kind of antelope with large, soft eyes.
- geological** (jē/ə loj/i kəl), having to do with geology, the science that deals with the earth's crust, the layers of which it is composed, and their history.
- glacial** (glā/shəl), icy; of ice; having much ice.
- glower** (glou/ər), stare; scowl.
- gramercy** (grēmər/si), many thanks!
- guilder** (gil/dər), a Dutch silver coin.
- guttural** (gut/ər əl), 1. of the throat. 2. formed in the throat; harsh.
- gyration** (jīrā/shən), circular or spiral motion; whirling; rotation.
- habitation** (hab/itā/shən), 1. a place or building to live in. 2. living in. Is the house fit for habitation?
- harrow** (har/ō), 1. a machine for breaking up plowed ground or for covering seed with earth. 2. use such a machine. 3. to hurt; wound. 4. arouse uncomfortable feelings in; as, a harrowing tale of ghosts.
- heckle** (hek/əl), 1. ask many bothersome questions in order to annoy (a speaker). 2. bother; annoy.

hectic

hectic (hek'tik), 1. very exciting; feverish. 2. showing the signs of tuberculosis; having flushed cheeks, hot skin, and loss of flesh.

heresy (her'ə-si), 1. a belief different from the accepted belief of a church, school, or group. 2. the holding of such a belief.

hilarious (hi lār'īəs), noisily gay.

hob (hob), a shelf at the back or side of a fireplace.

homage (hom'ij), respect; reverence; honor.

hospitable (hos'pi tə bəl), 1. giving or liking to give a welcome, food and shelter, and friendly treatment to guests or strangers. 2. willing and ready to entertain; as, a person hospitable to new ideas.

humiliate (hū mil'iāt), lower the pride, dignity, or self-respect of. John felt humiliated by his failure. The child's bad behavior was humiliating to his parents.

hypnotize (hip'nəīz), put into a condition resembling deep sleep, but more active, in which a person has little will of his own and acts according to the suggestions of the person who has brought about the condition.

hysterical (his ter'i kəl), unnaturally excited; showing an unnatural lack of control; unable to stop laughing, crying, etc.

immaculate (i mak'ū lit), 1. without a spot or stain. 2. pure; without sin.

imminent (im'inənt), likely to happen soon; about to occur.

immortalize (imōr'talīz), give everlasting fame to.

immune (imūn'), exempt; resistant. Immune to means able to resist disease.

jaunt

immunize (im'ū nīz or imūn'īz), make a person or an animal immune to a disease.

impartial (im pār'shəl), fair; just; showing no more favor to one side than to the other.

impede (im pēd'), hinder; obstruct.

imperative (im per'ə tiv), 1. urgent; necessary; not to be avoided. 2. a command.

impressive (im pres'iv), able to impress the mind, feelings, conscience, etc.; as, an impressive sermon, an impressive storm.

inaccessible (in'ak ses'i bəl),

1. that cannot be reached easily.
2. that cannot be reached at all.

inestimable (in es'ti mə bəl), of too great worth or value to be measured.

inevitable (in ev'i tə bəl), not to be avoided; sure to happen.

infect (in fekt'), 1. cause disease in by introducing germs. 2. influence in a bad way.

infinitely (in'fī nit li), to a degree that has no limits or bounds.

interlace (in'tər lās'), 1. arrange (threads, strips, branches, etc.) so that they go over and under each other. We interlace reeds or fibers to make a basket. 2. cross each other over and under; mingle together. The branches of the trees interlaced above the path.

internal (in tēr'nəl), inner; on the inside; as, internal organs of the body, such as the lungs.

intoxicating (in tok'si kāt' ing),

1. making drunk. 2. very exciting.
isolate (i'sə lāt or is'ə lāt), place apart; separate from others.

jaunt (jōnt), 1. a short journey or excursion, especially for pleasure. 2. take such a trip.

hat, āge, cāre, fār; let, bē, tērm; it, ice; hot, ōpen, ōrder; oil, out;
cup, pūt, rūle, ūse; circās

jaunty

jaunty (jôn/ti or jän/ti), 1. easy and lively; carefree. The happy boy walked with jaunty step. 2. airy; gay; as, a jaunty tune. 3. stylish; showy; as, a jaunty hat. **jib** (jib), a triangular sail set in front of the foremast.

jockey (jok/i), 1. boy or man who rides horses in races as an occupation. 2. to trick; cheat. Mr. Smith was jockeyed into putting his money into oil stock. 3. maneuver so as to get advantage. The crews were jockeying their boats to get into the best position for the race.

joree (jōrē/), a bird belonging to the finch family. Also called a towhee or chewink.

kniekerbockers (nik/ər bok/ərz), short, loose trousers gathered in at or just below the knee.

kraal (krāl), 1. village of South African natives, protected by a fence. 2. pen for cattle or sheep.

laconic (lə kon/ik), using few words; brief in speech or expression.

laconically (lə kon/ikəli), in few words; briefly.

lacquer (lak/ər), 1. a varnish consisting of shellac dissolved in alcohol, used for coating brass, etc. 2. a natural varnish obtained from the resin of a sumac tree of southeastern Asia. 3. to coat with lacquer. 4. articles coated with lacquer.

ladyship (lā/diship). Your or her Ladyship is a title used in speaking to or of one having the rank of lady.

land lubber (land/lub/ər), person not used to being on ships.

larder (lār/dər) 1 place where food is kept. 2 stock of food.

lateral (lat/ərel), of the side; at the side; from the side; toward the side.

mantua

leer (lēr), 1. a sly, nasty look to the side; evil glance. 2. give a sly, evil glance.

legible (lej/i bəl), 1. that can be read. 2. easy to read; plain and clear.

lethal (lē/thəl), causing death; as, lethal weapons, a lethal dose of a drug.

levis (lē/vīz), overalls.

linsey-woolsey (lin/zi wūl/zi), strong coarse fabric made of linen and wool or of cotton and wool.

livid (liv/id), 1. having a dull-bluish or leaden color; as, the livid face of a dead man. 2. discolored by a bruise; as, the livid marks of blows on his arm.

longshoreman (lōng/shōr/mən), man whose work is loading and unloading ships.

loquat (lō/kwot or lō/kwat), 1. small evergreen tree with small, yellow, edible, plumlike fruit. 2. the fruit.

lotion (lō/shən), a liquid containing medicine. Lotions are applied to the skin to relieve pain, to heal, to cleanse, or to benefit the skin.

lush (lush), 1. tender and juicy; growing thick and green. Lush grass grows along the river banks. 2. abundant.

magpie (mag/pi), 1. a black-and-white bird that chatters a great deal. 2. person who chatters.

mallard (mal/ərd), kind of wild duck.

mania (mā/niə), 1. a kind of insanity characterized by great excitement. 2. a craze; a rage; an unreasonable desire.

manifest (man/i fest), 1. clear; apparent to the eye or to the mind; plain. 2. show plainly; prove.

mantua (man/chūə or man/tūə), 1. loose gown or cloak formerly worn by women. 2. mantle.

marauding

marauding (mə'rôd'ing), going about in search of plunder; making raids for booty. The marauding Indians stole many horses.

marinate (mar'īnāt), 1. soak in brine. 2. soak in oil and vinegar.

mastoiditis (mas'toid I'tis), inflammation of the projection of bone behind the ear.

maw (mô), 1. mouth. 2. throat. 3. stomach.

meander (mīan'dər), 1. to wind about; as, a river which meanders. 2. a winding path or course. 3. to wander without aim or purpose.

meddle some (med'əlsəm), meddling; interfering; likely to meddle in other people's affairs.

merri ment (mer'imənt), laughter; fun; mirth; merry enjoyment; gaiety.

mettle (met'əl), disposition; spirit; courage. The brave knight was a man of mettle. A high-mettled horse has an abundance of spirits.

mica (mī/kə), isinglass, a mineral that divides into thin, partly transparent layers.

mizzen (miz'en), the mast nearest the stern.

mobile (mō'bil), movable; moving easily; easy to move.

monoplane (mon'əplān), airplane with a single plane.

morality (məral'iti), 1. the right or wrong of an action; as, to question the morality of dancing on Sunday. 2. doing right; virtue. 3. a system of morals; a set of rules or principles of conduct.

morocco (mərok'ō), a fine leather made from goatskins.

mortification (môr'ti fī kā'shən), state of having one's feelings wounded or of being made to feel humble or ashamed.

ominous

mosaic (mōzā'ik), 1. small pieces of stone, glass, wood, etc., of different colors inlaid to form a design. 2. formed by or resembling such work. 3. such a picture or design.

motive (mō'tiv), 1. the thought or feeling that makes one act. 2. that makes something move; as, motive power of steam or electricity.

nonplussed (non'plust), puzzled; not knowing what to say or do.

objective (əbjek'tiv), 1. something aimed at. My objective this summer will be learning to drive a car. 2. real; existing outside the mind as an actual object, and not merely in the mind as an idea. 3. about outward things, not about the thoughts and feelings of the speaker, writer, painter, etc.; giving facts as they are, without a bias toward either side; impersonal.

oblique (əblēk'), slanting; not straight up and down; not straight across.

officious (əfish'əs), too ready to offer services or advice; meddling; minding other people's business.

offset (ōf'set/ for 1 and 2, ōf'set/ for 3, 4, and 5). 1. make up for; balance. The better roads offset the greater distance. 2. set off or balance; as, to offset the better roads against the greater distance. 3. something which makes up for something else. The better roads on this route are an offset for the greater distance. 4. a short side shoot from a main stem or root which starts a new plant. 5. any offshoot.

ominous (om'inəs), of bad omen; unfavorable; threatening. Those clouds look ominous for our picnic.

hat, āge cāre, fār; let bē, tērm; it, Ice; hot, ōpen, ōrder; oil, out;
cup, pūt rīle, ūse; circēs

onerous

- onerous** (on/ə'res), burdensome; oppressive. Overtime work is well paid, but it is often onerous.
- opportune** (op/ər'tūn/ or op/ər'tūn/), fortunate; well-chosen; favorable; suitable.
- oscillate** (os'ilāt), 1. swing to and fro like a pendulum; move to and fro between two points. 2. vary between opinions, purposes, etc.
- paling** (pāl'ing), 1. fence of pales. 2. long, narrow board, pointed at the top, used for fences.
- pall¹** (pōl), 1. a heavy cloth of black, purple, or white velvet spread over a coffin or a hearse. 2. dark, gloomy covering. A thick pall of smoke shut out the sunlight.
- pall²** (pōl), become distasteful or very tiresome because there has been too much of it.
- pamper** (pam'pər), indulge too much; allow too many privileges.
- parapet** (par'əpet), 1. low wall to protect soldiers. 2. low wall at the edge of a balcony, roof, bridge, etc.
- parchment** (pärch'mənt), the skin of sheep or goats, prepared for use as a writing material.
- patronage** (pā'trən'ij), 1. the favor, encouragement, or support given by a patron (a person who stands behind the work of another). 2. regular business given to a store, hotel, etc., by customers.
- patronize** (pā'trən'īz), 1. act as a patron toward; support or protect. People are urged to patronize their neighborhood stores. 2. treat as though dealing with an inferior.
- patten** (pat'en), wooden overshoe with a thick sole.
- pedagogue** (ped'əgog), teacher.
- pediatrics** (pē'dīat'rīks or ped/i-at'rīks), branch of medicine dealing with children's diseases and the care of babies and children.

plummet

- penetration** (pen/i'trā'shən), 1. act or process of entering or piercing through. 2. soaking through; spreading through. 3. sharpness of intellect; insight.
- pennon** (pen'en), a long triangular flag or banner.
- pensive** (pen'siv), thoughtful in a serious or sad way.
- peradventure** (pēr'əd ven'chər), 1. perhaps. 2. chance.
- perplexity** (pərplek'si'ti), 1. confusion; being puzzled; not knowing what to do or how to act. 2. something that perplexes.
- perverse** (pərvərs'), 1. stubborn. 2. wicked.
- pesimism** (pes'i'miz'm), 1. tendency to look on the dark side of things or to see difficulties and disadvantages. 2. belief that things naturally tend to evil.
- pewter** (pū'tər), 1. alloy of tin with lead, copper, or other metals. 2. dishes or other utensils made of this. 3. made of pewter; as, a pewter mug.
- phenomenon** (fi'nəm'i'nən), 1. fact, event, or circumstance that can be observed. Lightning is an electrical phenomenon. 2. something extraordinary or remarkable.
- plaza** (pi'az'ə), large porch along one or more sides of a house.
- pigsty** (pig'stī/), pigpen.
- pillage** (pil'ij), 1. to plunder; rob with violence. Pirates pillaged the towns along the coast. 2. plunder; robbery.
- plashy¹** (plash'i), wet; marshy.
- plashy²** (plash'i), that splashes or makes a noise of splashing.
- plausible** (plā'zi'bəl), 1. appearing true, reasonable, or fair. 2. apparently worthy of confidence but often not really so; as, a plausible liar.
- plummet** (plum'it), a weight fastened to a line; plumb.

plunder

plunder (plun'dər), 1. rob; rob by force. 2. things taken in plundering; booty; loot.

pock (pok), 1. a blister-like spot or mark resulting from smallpox or a skin disease; any spot like this. 2. to mark with or as with such spots.

poke-greens (pök/grēnz'), tender shoots of the pokeweed plant, which are boiled.

pontoon (pontün'), 1. a low flat-bottomed boat. 2. such a boat, or some other floating structure, used as one of the supports of a temporary bridge. 3. either of the two boat-shaped parts of an airplane, for landing on or taking off from water.

porous (pō/rəs), full of pores or tiny holes. Cloth, blotting paper, and ordinary flowerpots are porous.

poultice (pōl'tis), soft mass of mustard, herbs, etc., applied to the body as medicine.

precision (pri sizh'an), accuracy; exactness; as, the precision of a machine.

predatory (pred'ə tō'ri), 1. of or inclined to plundering or robbery; as, predatory bands of highwaymen. 2. preying upon other animals. Lions are predatory animals.

predecessor (pred'isēs'ər or pred'isēs'ər), person (or thing) that came before another. John Adams was Jefferson's predecessor as President.

premature (prē'mə tūr' or prē'mə tūr'), before the proper time; too soon.

preposterous (pri pōs'tərəs), contrary to nature, reason, or common sense; absurd; senseless; ridiculous.

presumptuous (pri zump'tshəs), forward; too bold; daring too much.

rattan

pretension (priten'shan), 1. a claim. The young prince has pretensions to the throne. 2. a putting forward of a claim; laying claim to. 3. doing things for show or to make a fine appearance; showy display.

prith ee (prith'i). I pray thee; I ask you. Prith ee, who art thou?

proffer (prof'ər), offer. We proffered regrets at having to leave so early.

prospective (prə spek'tiv), 1. probable; expected. 2. looking forward in time; future.

prowess (prou'is), 1. bravery, daring. 2. unusual skill or ability.

pumice (pum'is), light spongy stone thrown up from volcanoes, used for cleaning and polishing.

python (pī'thon), a large snake that crushes its prey.

querulous (kwer'ūləs or kwer'ū-ləs), complaining; fretful; peevish.

quirt (kwért), riding whip.

radium (rā'diəm), a rare, costly metallic element that gives off powerful rays.

ramp (ramp), sloping way connecting two different levels of a building, road, etc.; slope.

ramrod (ram'rod'), 1. a rod for ramming down the charge in a gun that is loaded from the muzzle. 2. rod for cleaning the barrel of a gun.

rapturous (rap'chərəs), full of rapture, or strong feeling that absorbs the mind; expressing or feeling rapture.

rattan (ra tan'), 1. a kind of palm with a very long stem. 2. the stems of such palm trees, used for wickerwork, canes, etc.

hat, āge, cāre, fār; let. bē, tērm; it, lce; hot, ōpen, ōrder; oil, out;
cup, pūt, rīle, ūse; circæ

recess (ri ses'), 1. time during which work stops. 2. a part in a wall set back from the rest; niche. 3. inner place or part; quiet, out-of-the-way place; as, the recesses of a cave.

remonstrance (ri mon'strəns), protest; complaint.

renunciation (ri nun'si ā'shən), giving up a title, possession, right, dream, etc.

repast (ri past'), meal; food.

reputedly (ri pūt'id i), supposedly; in popular opinion; as, a reputedly wealthy man.

revelation (rev'ə lā'shən), 1. act of making known. The revelation of the secret ended the mystery. 2. the thing made known.

revenue (rev'ə nū or rev'ə nū), money coming in; income.

reverie (rev'əri), dreamy thoughts; state of being absorbed in thought. She was so lost in reverie that she did not hear the doorbell ring.

revolutionize (rev'ə lū'shən iz or rev'ə lū'shən iz), change completely; produce a very great change in.

routine (rūtēn'), 1. a fixed, regular method of doing the same things in the same way. 2. list of things to be done.

rummage (rum'ij), 1. search thoroughly by moving things about. 2. search in a disorderly way. 3. pull from among other things. 4. a rummaging search.

saga (sā'gə), an old story of heroic deeds

sampler (sam'plər or sām'plər), piece of cloth embroidered to show skill in needlework.

scathe (skāth), hurt; harm.

scathing (skāth'ing), bitterly severe.

scenic (sē'nik), 1. of or pertaining to natural scenery 2. having much fine scenery; as, a scenic highway.

scimitar (sim'itər), a short, curved sword.

scintillate (sin'tilāt), sparkle; flash; as, scintillating diamonds, scintillating wit.

scrupulous (skrū'pūləs), 1. having or showing a strict regard for what is right. 2. attending thoroughly to details; very careful.

scud (skud), run or move swiftly. Clouds scudded across the sky.

scullery (skul'əri), small room where the dirty, rough work of a kitchen is done.

scullion (skul'yən), servant who does the dirty, rough work in a kitchen.

secondary (sek'əndār'i), 1. next after the first in order, place, time, etc. 2. not main or chief. 3. coming after the first, or primary, grades in school; as, secondary, or high-school, pupils.

sector (sek'tər), 1. the part of a circle between two radii and the included arc. 2. one of the districts into which an area is divided for military purposes.

sedentary (sed'ən tā'r'i), 1. used to sitting still much of the time. Sedentary people get little physical exercise. 2. that keeps one sitting still much of the time.

semi-barbaric (sem'i bār bar'ik), only half civilized.

sequence (sē'kwəns), 1. succession; the coming of one thing after another; order of succession. Arrange the names in alphabetical sequence. 2. connected series; as, a sequence of lessons on one subject. 3. something that follows; result. Crime has its sequence of misery.

serenade (ser'ə nād'), 1. music played or sung outdoors at night, especially by a lover under his lady's window. 2. sing or play to in this way. 3. musical sound like a serenade.

shad

- shad** (shad), a food fish.
shallop (shal'əp), a small, light boat.
simultaneous (sɪ'məltā'nies), existing, done, or happening at the same time.
singular (sing'gūlər), 1. extraordinary; unusual. 2. strange; queer. 3. being the only one of its kind. 4. one in number.
skipper (skip'ər), the captain of a ship.
sleuth (slūth), 1. bloodhound. 2. detective. 3. follow a track or clue as a sleuth does.
slosh (slosh), 1. slush; partly melted snow or soft mud. 2. to splash in mud or water. 3. to make a splashing sound.
smattering (smat'ərɪŋ), slight knowledge.
snub (snub), 1. treat coldly, scornfully, or with contempt. 2. cold, scornful, or disdainful treatment. 3. check or stop (a boat or a horse) suddenly. 4. sudden check or stop. 5. short and turned up at the tip; as, a snub nose.
sojourn (sō'jərn), 1. stay for a time. 2. a brief stay.
solder (sod'ər), 1. metal that can be melted and used for joining or mending. 2. fasten with solder; mend with solder.
solemnize (sol'əm nīz), 1. observe with ceremonies. Christian churches solemnize Easter. 2. hold or perform (a ceremony or service). The marriage was solemnized in the cathedral. 3. make serious or grave.
sortie (sōr'ti), 1. sudden rushing forth of troops from a besieged castle, fort, town, etc., to attack the besiegers. 2. any sudden attack of this sort.

swelter

- specter** (spek'tər), 1. ghost. 2. thing causing terror.
sponsor (spon'sər), 1. person who is responsible for a person or thing; as, the sponsor of a law. 2. act as sponsor for.
stagnant (stag'nənt), 1. not running or flowing; foul from standing still. 2. not active; dull.
sterile (ster'il), 1. barren; not fertile. Sterile land does not produce good crops. 2. free from living germs. A doctor's instruments must be kept sterile.
stevedore (stē'vədōr), man who loads and unloads ships.
subsequent (sub'sikwənt), later; following; coming after. Subsequent events proved the truth of his prophecy.
suet (sū'it), the hard fat of cattle or sheep. Beef suet is used in cooking and for making tallow.
sumptuous (sump'chūəs), costly; magnificent; rich.
supernatural (sū'pərnach'ə rəl or sū'pərnach'ə rəl), above or beyond what is natural. Ghosts are supernatural beings.
surgical (sēr'jɪkəl), of or having to do with the art and science of treating diseases, injuries, etc., by operations and instruments.
surmise (sēr mɪz'), guess. His guilt was a matter of surmise; there was no proof.
sustain (səstān'), 1. hold up, support. 2. supply with the means of living, especially food. The lost men were sustained by their meager rations for three days. 3. suffer; experience. She sustained a great loss in the death of her husband.
swatch (swoch), sample of cloth.
swelter (swel'tər), 1. suffer from heat. 2. perspire freely; sweat.

hat, āge, cāre, fār; let, bē, tērm; it, ice; hot, ōpen, ōrder; oil, out;
 cup, pūt, rūle, ūse; circās

swineherd

swine herd (swin/hêrd/), person who tends pigs or hogs.

synthetic (sinthet/ik), 1. made artificially; as, synthetic rubber. 2. pertaining to the combination of parts or elements into a whole.

tamarind (tam/ə'ri:nd), 1. a tropical tree grown for its wood and fruit. 2. its fruit.

taut (tôt), 1. tightly drawn; tense; as, a taut rope. 2. tidy; neat.

technical (tek/nikal), of or pertaining to a mechanical or industrial art or to applied science; as, a technical school; technical knowledge of an engine.

tendon (ten/dən), a tough, strong band or cord that joins a muscle to a bone; a sinew.

tentative (ten/tə'tiv), done as a trial or experiment; experimental; as, a tentative plan.

tether (teth/ər), 1. rope or chain by which an animal is fastened. 2. fasten with a tether.

texture (teks/chər), 1. arrangement of threads woven together. This linen tablecloth has a fine texture. 2. arrangement of the parts of anything; structure.

theory (thē/əri), 1. explanation; explanation based on observation and reasoning. 2. idea or opinion about something.

threadbare (thred/bâr/), 1. having the nap worn off; worn so much that the threads show; as, a threadbare coat. 2. wearing clothes worn to the threads; shabby; as, a threadbare beggar. 3. old and worn; as, a threadbare excuse.

tinder (tin/dər), material used to catch fire from a spark.

tipper (tip/it), 1. scarf for the neck and shoulders with ends hanging down in front. 2. long, narrow, hanging part of a hood, sleeve, or scarf.

tusk

ti-ti (tē/tē), a tree having glossy leaves and white flowers.

toga (tō/gə), 1. a loose outer garment worn by men of ancient Rome. 2. robe of office.

tourney (têr/ni), tournament, or contest between two groups of knights on horseback who fought for a prize.

transfuse (transfüz/), 1. pour from one container into another. 2. transfer (blood) from one person or animal to another.

treasure-trove (trezh/ər trôv/), money, jewels, or other treasure that a person finds, especially if the owner of it is not known.

tremor (trem/ər), 1. a shaking or trembling; as, a nervous tremor in the voice. 2. thrill of emotion or excitement.

tremulous (trem/ū ləs), 1. trembling; quavering. 2. timid; feeling fear.

trencher (tren/chər), wooden platter on which meat was formerly served and carved.

tricorn (trī/körn), a three-cornered hat.

trivet (triv/it), a metal stand or support with three legs, used to hold a kettle near the fire.

truss (trus), 1. tie; fasten. The cook trussed up the chicken before roasting it. 2. beams or other supports connected to support a roof, bridge, etc. 3. bandage or pad used for support.

tundra (tun/drə), a vast, level, treeless plain in the arctic regions.

tunic (tū/nik or tū/nik), 1. garment like a shirt or gown, worn by the ancient Greeks and Romans; any garment like it. 2. woman's dress, coat, or blouse extending below the waist. 3. soldier's coat.

tusk (tusk), 1. a very long, pointed tooth that sticks out. 2. any tusklike tooth.

tye (tī), a rope for raising or lowering the yard (the beam that supports the square sail).

tympanum (tim/pənem), 1. the eardrum. 2. the middle ear.

ubiquitous (ūbik/witas), being everywhere at the same time.

udder (ud/ər), the bag of a cow or goat from which the milk comes.

ulster (ul/star), a long, loose, heavy overcoat.

ultimate (ul/timit), 1. last, final. 2. something final or essential.

umber (um/bar), 1. a brown paint. 2. a reddish-brown paint. 3. brown or reddish brown.

unerring (unēr/ing), making no mistakes; exactly right.

unique (ūnēk/), 1. having no like or equal; being the only one of its kind. 2. rare; unusual.

unleash (unlēsh/), release from a leash or as from a leash; as, to unleash a dog, to unleash a sword, to unleash one's temper.

unsightly (unslt/li), ugly or unpleasant to look at.

vent (vent), 1. hole; opening. 2. way out; expression. Her grief found vent in tears. 3. express freely. He vented his anger on the dog.

vertebrae (vēr/tibrē), the plural of **vertebra** (vēr/tibrā), one of the bones of the backbone.

vestige (ves/tij), trace; mark. A blackened, charred stump was a vestige of the fire.

villa (vil/ə), a house in the country or suburbs. A villa is usually a large or elegant residence.

violin cello (vl/ələnchel/ō), a musical instrument like a violin, but very much larger; a bass violin. It is commonly called a cello.

vitality (vital/iti), 1. vital force; power to live; strength. Her vitality was lessened by illness. 2. power to endure and act.

vocation (vōkā/shan), 1. a particular occupation, business, profession, or trade. She chose teaching as her vocation. 2. an inner call or summons.

vogue (vōg), 1. the fashion. Hoop skirts were in vogue many years ago. 2. popularity. That song had a great vogue at one time.

wadding (wod/ing), 1. soft material for padding, stuffing, packing, etc. 2. round plug of felt, cardboard, etc., used to hold powder and shot in place in a gun or cartridge. 3. wad.

warp (wōrp), 1. bend or twist out of shape. 2. Threads running lengthwise in a fabric. The warp is crossed by the woof.

whimsical (hwim/zikəl), 1. having many odd notions or fancies; fanciful; odd. 2. full of sudden fancies or notions.

wight (wīt), person; human being. Ichabod Crane was a worthy wight.

worsted (wūs/tid), 1. firmly twisted woolen thread or yarn. 2. cloth made from such thread or yarn. 3. woolen yarn for knitting, crocheting, and needlework.

yardarm (yārd/ārm/), either end of the beam or pole which supports a square sail.

yaw (yō), 1. turn from the straight course. 2. such a movement.

yeomanry (yō/mənri), a class of people representing the common people of the first class who are freeborn and own some land.

hat, āge, cāre, fār; let, bē, tērm; it, Ice; hot, ōpen, ōrder; oil, out;
cup, pūt, rīle, ūse; circas

PRONUNCIATION OF PROPER NAMES

For the pronunciation of certain foreign proper names, the following symbols are used:

- Y** as in French du (dy). Pronounce y as ē with the lips rounded as for English ū in rule.
œ as in French peu (pœ). Pronounce œ as ā with the lips rounded as for ō.
N as in French bon (bōN). The N is not pronounced, but shows that the vowel before it is nasal.
H as in German ach (aH). Pronounce H as k without closing the breath passage.

Aershot (är'shot)
Agote (ä gō'tā)
Aix (äks)
Aleutian (əlü'shən or əlū'shən)
Alpha (al'fə)
Amoy (əmoi')
André (an'drā)
Aniakchak (aniak'chak)
Anthula (än tü'lā)
Arapahoe (ərap'əhō)
Arbois (är bwā')
Aristotle (ar'istot'əl)
Armenian (ärmē'niən)
Arngrim (ärn'grim)
Athelstane (ath'elstān)
Attilio (ä til'iō)

Baltus (böl'təs)
Bardi (bär'di)
Basilio (bäsē'lyō)
Batavia (bə tā'viə)
Batu (bä tü')
Beeham (bē'chem)
Bend sin (ben'jēn)
Bering (bēr'ing or bār'ing).
Bloeme. (See De Bloeme).
Bois-Gullbert, Brian de (brē'än' də bwā' gēl'bär')
Boom (bōm)
Bra cy, Maurice de (mō'rēs' də Brä'sē')
Brune (brū'ne)
Bryn Mawr (brin' mār')
Buchanan (bü kan'en or bə kan'en)

Cannoble (can'ə bi)
Cedric (sed'rik or sē'drik)
Cicon (sī'kon)
Coeur de Lion (kēr də lē'on')
Conan (kō'nən)
Covenant (kuv'ənt or kov'ənt)
Cratchit (kratch'it)
Creesy (krēs'i)
Crookes (krúks)
Cusack (kü'sak)
Cyclopes (sī klō'pēz)
Cyclops (sī'klops)
Czes to cho wa (chen'stō kō'və)

Dalhem (däl'hem)
Darius (där'i'əs)
De Bloeme (də blū'mə)
Deborah (deb'ərə)
Delft (delft)
Derek (dérk)
Dominga (dō mēng'gä)
Dorbandt (dôr'bant)
Düffeld (dü'feld')
Dunkirk (dun'kérk or dun kérk')

Egvynd (eg'vynd)
Egvynds dottir (eg'vyns dôt'tər)
Egvynds son (eg'vynssôn)
Els bi etka (els byet'ka)
Erik (er'ik)

Farallon (far'əlōn)
Federico (fä'därē'kō)
Fitzurse, Walde mar (wöl'də mār fits'ers')

Flanders

Flan ders (flan'dərz)
Fronta nowski (fron'tə nof'ski)
Front-de-Bœuf (frôn'də bœf')
Gam al stad dur (gäm'əl städ'dyr)
Genghis Khan (jen'gis kân')
Ghent (gent)
Graeme (grä'em)
Grant mes nil, Hugh de (hū də grän'-mā'nēl')
Gulka na (gül kă'nă)
Guten berg (güt'tən bərg)
Hades (hă'dēz)
Has selt (häs'əlt)
Helga (hel'gä)
Hil de brand (hil'də brand)
Hol born (hō'börn or hōl'börn)
Hosi (hō'sē)
Ibra him (ē'brä hēm')
Ic a rus (ik'ə rəs)
Ich a bod (ik'ə bod)
Indone sian (in'dō nē'shən or in'-dō nē'zhən)
Is ma rus (is'mä rus)
Ith a ca (ith'ə kə)
Ivan hoe (ī'vən hō)
Je hosh a phat (ji hosh'ə fat)
Jo han sen (yō'hän sen)
Joris (jor'is)
Josiah (jōsī'ə)
Juan (hwän or jü'an)
Juniper (jü'ni pər)
Jupiter (jü'pi tər)
Kasimir (kas'imir)
Ka trina (ka trē'nə)
Kearny (kär'ni)
Ker a sun (ker'ə sun')
Klu a ne (klü ä'nä)
Land steiner (länt'shtl'nér)
La rison (la'risən)
Leeu wen hoek, van (vän lä'vən-hük')
Lei den (li'dən)

Rhodesia

Leif (lēf)
Lewisohn (lū'izōn)
Ideg nits (lēg'nits)
Idile (lēl)
Loch in var (lok'in vār')
Lok er en (lōk'ér en)
Loos (lōs)
Lu ere tius (lū krē'shəs or lū krē'shəu)
Lu e na (lū ä'nä)
Luko na (lū kō'nä)
Lun ter (lun'tér)
Male a (mā'liä)
Mag ee (mə gē')
Mal vois ain, Richard de (rē'shar'də mal'vwä'zan')
Maule (mōl)
Mech ein (meh'əin)
Melk el john (mīk'əl jon or mīk'əl-jon)
Meis ter (mīs'tər)
M' Eng li (meng giē')
Meshik (mesh'ik)
Mor car (mōr'kär)
Mor rocco (mārok'ō)
Munich (mū'nik)
Neptune (nep'tūn or nep'tūn)
Nik ola ki (nē'kō lä'ki)
Noyes (noiz)
Ogdal (ōg'dl)
Olafsson (ō'läfsən)
Pan sa, Glaucus (glou'kūs pän'sä)
Pasteur, Louis (lū'i' päs'tør' or pas tər')
Paw nee (pōnē')
Ped lo (päd'lō)
Platte (plat)
Pol y phe mus (pol'i fē'mas)
Pom peii (pom pä' or pom pä'ē)
Py tor (pē'tōr)
Ragna (räg'nä)
Rey kja vik (rē'kyä vėk')
Rho desia (rō dē'zhe)

hat, äge, cäre, fär;
 cup, püt, rüle, üse;

let, bē, tērm;
 circēs

it, Ice; hot, öpen, ördér;

öü, öut;

Roentgen

Roentgen, Wilhelm Konrad (vil'-
helm kon'rad rent'gan)
Roos (rōs)
Rous, Peyton (pā'tən'rūs)
Rowena (rōē'nə)

Salisbury (sôlz'beri)
Sa-M'Engli (să'meng'glē)
Sam o set (sam'əset)
Sanskrit (san'skrit)
Saugus (sô'gəs)
Schoeffler (shēf'ēr)
Schultz (shūltz or shūl'tsi)
Scrooby (scrūb'i)
Sigberg (sig'berg)
Sigga (sig'gä)
Slau son (slô'san)
Socra tes (sok'rə tēz)
Solway (sol'wä)
Spokane (spōkan')
Squan to (skwän'tō)
Stanislaus (stan'is lōs)
Stas (stäs)
Stefan (stā'fän)
Stinetorf (stīn'tōrf)
Strasbourg (stras'bērg)
Strumia (strū'myā)
Surmelian, Leon (lā'ōn' sūr mā'li-
än')

Tagudin (tä'gü dēn')
Tanana (tä'nä nā')
Tappan Zee (tap'än zā)
Think vellir (thing'kvel'ir)
Thompkins (tomp'kinz)

Zulu

Tito (tē'tō)
Tongres (tōn'grə)
Topeka (təpē'kə)
Tordis (tōr'dis)
Tottenham (tot'ən əm)
Trebizond (treb'izond')
Tuskegee (tus kē'gi)

Ulysses (ūlis'ēz)
Untermeyer (un'tərml'ər)
Up de graff (up'di graf)
Ushold (ush'əld)

Vachel (vā'shel)
Vahe (vā'hä)
Van Brunt, Brom (brom van brunt)
Van Tas sel, Ka tri na (kə trē'nə von
tas'əl)
Veiga (vā'gä)
Vesuvius (visū'viəs or visū'viəs)
Viking (vī'king)
Vipont, Ralph de (ralf də vē'pōn')
Vitus (vī'təs)

Walla Walla (wol'ə wol'ə)
Well (wīl)
Wenatchee (winach'i)
Wolke, Jan (yän vōl'kə)
Wrangell (rang'gəl)
Würzburg (vrts'bürk)

Yussouf (yus'uf)

Zambezi (zambē'zi)
Zulu (zü'lü)

hat, äge, cäre, fär; let, bē, tērm; it, ice; hot, öpen, örder; oil, out;
cup, püt, rüle, üse; circəs

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